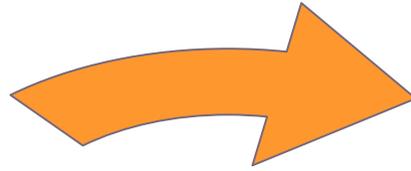
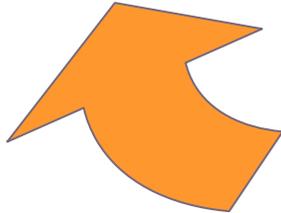


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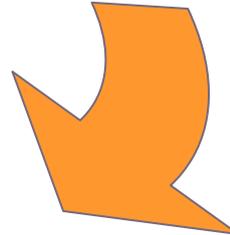
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**SPEECH & LANGUAGE THERAPY UPDATE 9: WINTER 2018**



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# Contents

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|                            |           |
|----------------------------|-----------|
| <b>APHASIA</b>             | <b>4</b>  |
| <b>BRAIN INJURY/TRAUMA</b> | <b>14</b> |
| <b>CANCER</b>              | <b>21</b> |
| <b>DYSPHONIA</b>           | <b>22</b> |
| <b>HYPOPLASIA</b>          | <b>27</b> |
| <b>PHONOLOGY</b>           | <b>31</b> |
| <b>SWALLOWING</b>          | <b>42</b> |
| <b>OTHER</b>               | <b>49</b> |

## Articles (JULY 2018 – DECEMBER 2018)

### APHASIA

#### **Quantitative assessment of grammar in amyloid-negative logopenic aphasia.**

**Author(s):** Tetzloff, Katerina A.; Whitwell, Jennifer L.; Utianski, Rene L.; Duffy, Joseph R.; Clark, Heather M.; Machulda, Mary M.; Strand, Edythe A.; Josephs, Keith A.

**Source:** Brain & Language; Nov 2018; vol. 186 ; p. 26-31

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30205287

**Abstract:**Logopenic primary progressive aphasia (lvPPA) typically results from underlying Alzheimer's disease, but subjects have been reported that do not show beta-amyloid (A $\beta$ ) deposition. These subjects do not differ on neurological and speech-language testing from A $\beta$ -positive lvPPA, but they impressionistically show increased grammatical deficits. We performed a quantitative linguistic analysis of grammatical characteristics in A $\beta$ -negative lvPPA compared to A $\beta$ -positive lvPPA and agrammatic PPA, which is characterized by increased grammatical difficulties. A $\beta$ -negative lvPPA used fewer function words and correct verbs but more syntactic and semantic errors compared to A $\beta$ -positive lvPPA. These measures did not differ between A $\beta$ -negative lvPPA and agPPA. Both lvPPA cohorts showed a higher mean length of utterance, more complex sentences, and fewer nouns than agPPA. A $\beta$ -negative lvPPA subjects appear unique and share linguistic features with both agPPA and A $\beta$ -positive lvPPA. Quantitative language analysis in lvPPA may be able to distinguish those with and without A $\beta$  deposition.

**Database:** CINAHL

#### **Differentiating arterial ischaemic stroke from migraine in the paediatric emergency department.**

**Author(s):** Mackay, Mark T.; Lee, Michelle; Yock-Corrales, Adriana; Churilov, Leonid; Donnan, Geoffrey A.; Monagle, Paul; Babl, Franz E.; Yock-Corrales, Adriana

**Source:** Developmental Medicine & Child Neurology; Nov 2018; vol. 60 (no. 11); p. 1117-1123

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29655223

Available at [Developmental Medicine & Child Neurology](#) - from Wiley

**Abstract:**Aim: To estimate the strengths of association between clinical features and migraine or arterial ischaemic stroke (AIS) in children presenting to the emergency department. Method: Eighty-four children with migraine, prospectively recruited from 2009 to 2010, were compared with 55 children with AIS, prospectively/retrospectively recruited from 2003 to 2010. Odds ratios were calculated via logistic regression to measure associations between clinical features and process-of-care factors, and migraine and AIS. Results: Median age was 13 years 5 months (interquartile range 12y 11mo-13y 10mo) for migraine and 5 years (interquartile range 3y 7mo-8y) for patients with AIS. All cases of AIS and 30% of migraine cases underwent neuroimaging. Over 40% of children with migraine had vomiting, numbness, or visual disturbance; other symptoms were uncommon. Fifty-

five per cent had no signs on physician assessment. Weakness or speech disturbance were common in patients with AIS. Significant clinical features associated with increased odds of AIS included sudden symptom onset, weakness, seizures, speech disturbance, and ataxia, and signs of face, arm, or leg weakness, inability to walk, dysarthria, dysphasia, and altered consciousness ( $p < 0.05$ ). Significant features associated with decreased odds of AIS included older age, vomiting, visual, sensory, other symptoms, and absent focal signs on assessment ( $p < 0.05$ ). Interpretation: Presenting features can discriminate childhood AIS from migraine. These differences inform decisions about urgency and type of neuroimaging in children presenting to the emergency department with brain attack symptoms. What the Paper Adds: Weakness, seizures, ataxia, speech, or walking difficulties are more frequent in arterial ischaemic stroke (AIS). Vomiting, visual, or sensory disturbance and absent focal signs are more frequent in migraine. Identifying features of AIS and migraine guides neuroimaging in children with brain attack symptoms.

**Database:** CINAHL

### **Validation of a prediction model for long-term outcome of aphasia after stroke.**

**Author(s):** Nouwens, Femke; Visch-Brink, Evy G.; Dippel, Diederik W. J.; Koudstaal, Peter J.; de Lau, Lonneke M. L.; El Hachoui, Hanane; van de Sandt-Koenderman, Mieke W. M. E.; Lingsma, Hester F.

**Source:** BMC Neurology; Oct 2018; vol. 18 (no. 1)

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30322381

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Available at [BMC neurology](#) - from BioMed Central

Available at [BMC neurology](#) - from Europe PubMed Central - Open Access

Available at [BMC neurology](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Background: About 30% of stroke patients suffer from aphasia. As aphasia strongly affects daily life, most patients request a prediction of outcome of their language function. Prognostic models provide predictions of outcome, but external validation is essential before models can be used in clinical practice. We aim to externally validate the prognostic model from the Sequential Prognostic Evaluation of Aphasia after stroke (SPEAK-model) for predicting the long-term outcome of aphasia caused by stroke. Methods: We used data from the Rotterdam Aphasia Therapy Study - 3 (RATS-3), a multicenter RCT with inclusion criteria similar to SPEAK, an observational prospective study. Baseline assessment in SPEAK was four days after stroke and in RATS-3 eight days. Outcome of the SPEAK-model was the Aphasia Severity Rating Scale (ASRS) at 1 year, dichotomized into good (ASRS-score of 4 or 5) and poor outcome (ASRS-score  $< 4$ ). In RATS-3, ASRS-scores at one year were not available, but we could use six month ASRS-scores as outcome. Model performance was assessed with calibration and discrimination. Results: We included 131 stroke patients with first-ever aphasia. At six months, 86 of 124 (68%) had a good outcome, whereas the model predicted 88%. Discrimination of the model was good with an area under the receiver operation characteristic curve of 0.87 (95%CI: 0.81-0.94), but calibration was unsatisfactory. The model overestimated the probability of good outcome (calibration-in-the-large  $\alpha = -1.98$ ) and the effect of the predictors was weaker in the validation data than in the derivation data (calibration slope  $\beta = 0.88$ ). We therefore recalibrated the model to predict good outcome at six months. Conclusion: The original model, renamed SPEAK-12, has good discriminative properties, but needs further external validation. After additional external validation, the updated SPEAK-model, SPEAK-6, may be used in daily practice to discriminate between patients with good and patients with poor outcome of aphasia at six months

after stroke. Trial Registration: RATS-3 was registered on January 13th 2012 in the Netherlands Trial Register: NTR3271 . SPEAK was not listed in a trial registry.

**Database:** CINAHL

**TDQ-60 - a color picture-naming test for adults and elderly people: validation and normalization data.**

**Author(s):** Macoir, Joël; Beaudoin, Catherine; Bluteau, Josée; Potvin, Olivier; Wilson, Maximiliano A

**Source:** Aging, Neuropsychology & Cognition; Sep 2018; vol. 25 (no. 5); p. 753-766

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28853339

**Abstract:** Word-finding difficulties are usually assessed with picture-naming tests. In this article, we present the TDQ-60, a new test designed to assess acquired lexical access deficits, taking into account semantics and psycholinguistic variables. The article includes three studies. Study 1 describes the development phase of the TDQ-60. In study 2, healthy control participants and individuals with a diagnosis of the semantic variant of primary progressive aphasia were assessed to establish the convergent and discriminant validity of the TDQ-60. Finally, in Study 3, a group of 305 young and elderly French-speaking adults from Quebec were assessed in order to provide normative data. The results demonstrate that the TDQ-60 has good convergent validity and good discriminant validity. This study also provides normative data in which were considered the effect of age and education. The TDQ-60 is a new valid picture-naming test, controlled for psycholinguistic variables and designed to identify the influence of semantics on lexical access in spoken production.

**Database:** CINAHL

**Two year outcomes of poststroke writing and reading disorders.**

**Author(s):** Zukic, Sanela; Sinanovic, Osman; Zonic, Lejla

**Source:** Applied Neuropsychology: Adult; Sep 2018; vol. 25 (no. 5); p. 395-399

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28489413

**Abstract:** Poststroke language disorders are frequent and include aphasia, alexia, agraphia, and acalculia. These disorders refer to an acquired inability to read, write and calculate. In this study, we evaluated the two year outcomes of writing and reading disorders in poststroke patients, the natural course, recovery and mortality. We evaluated all the patients with stroke who were admitted to the Department of Neurology, University Clinical Centre Tuzla in period of six months, who developed poststroke alexia, agraphia, acalculia, or different combinations of these language disorders. Outcome of these patients was evaluated again after 24 months. For clinical assessment of alexia, agraphia, and acalculia we used Minnesota Test for Differential Diagnosis of Aphasia. We investigated 59 (30.5%) of 193 stroke patients with alexia, agraphia, acalculia, and combinations. Outcome of these patients after 24 months was: 37 (62.7%) died, 13 (22%) fully recovered, and 9 (15.3%) of them retained the same disorder or developed dementia or blindness. Binary logistic regression analysis showed that patients with combined language disorders had significantly higher mortality. The main factors influencing language disorders recovery in this study are initial severity of reading, writing and calculation impairment, age, neglect, and level of education.

**Database:** CINAHL

**Aphasia from the inside: The cognitive world of the aphasic patient.**

**Author(s):** Ardila, Alfredo; Rubio-Bruno, Silvia

**Source:** Applied Neuropsychology: Adult; Sep 2018; vol. 25 (no. 5); p. 434-440

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28535071

**Abstract:**The purpose of this study was to analyze the question: how do people with aphasia experience the world? Three questions are approached: (1) how is behavior controlled in aphasia, considering that a normal linguistic control is no longer available; (2) what is the pattern of intellectual abilities in aphasia; and (3) what do aphasia patients' self-report regarding the experience of living without language. In aphasia, behavior can no longer be controlled through the "second signal system" and only the first signal system remains. Available information suggests that sometimes no verbal abilities may be affected in aphasia. However, an important variability is observed: whereas, in some patients, evident nonverbal defects are found; in other patients, performance verbal abilities are within normal limits. Several self-reports of recovered aphasic patients explain the experience of living without language. Considering that language represents the major instrument of cognition, in aphasia, surrounding information is evidently interpreted in a partially different way and cognitive strategies are reorganized, resulting in an idiosyncratic cognitive world.

**Database:** CINAHL

**Critical brain regions related to post-stroke aphasia severity identified by early diffusion imaging are not the same when predicting short- and long-term outcome.**

**Author(s):** Zavanone, Chiara; Samson, Yves; Arbizu, Céline; Dupont, Sophie; Dormont, Didier; Rosso, Charlotte

**Source:** Brain & Language; Sep 2018; vol. 184 ; p. 1-7

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30179751

**Abstract:**Objectives: To identify the critical brain regions associated with 7-days, 3 and 6-months aphasia severity using diffusion-weighted imaging (DWI) in acute post-stroke patients. Materials and Methods: We performed a voxel-based ADC (Apparent Diffusion Coefficient) analysis to identify the critical brain areas correlated with aphasia at the acute (7-days outcome) and chronic stages (3 and 6-months). The location of these areas was compared with the trajectory of the dorsal (the arcuate fasciculus) and the ventral language pathways (the inferior fronto-occipital and the uncinete fasciculi). Results: Disconnections of the language fasciculi, which were correlated with aphasia outcome, were not the same for the 7-days outcome (disconnection of the ventral stream) and the chronic outcome (3 and 6 months) (disconnection of the dorsal and ventral streams). Conclusion: Routine clinical images can be merged with atlases of anatomical connectivity to provide new insights about the relationship between the lesion location and aphasia severity.

**Database:** CINAHL

## **Treatment of sentence comprehension and production in aphasia: is there cross-modal generalisation?**

**Author(s):** Adelt, Anne; Hanne, Sandra; Stadie, Nicole

**Source:** Neuropsychological Rehabilitation; Sep 2018; vol. 28 (no. 6); p. 937-965

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 27610543

**Abstract:** Exploring generalisation following treatment of language deficits in aphasia can provide insights into the functional relation of the cognitive processing systems involved. In the present study, we first review treatment outcomes of interventions targeting sentence processing deficits and, second report a treatment study examining the occurrence of practice effects and generalisation in sentence comprehension and production. In order to explore the potential linkage between processing systems involved in comprehending and producing sentences, we investigated whether improvements generalise within (i.e., uni-modal generalisation in comprehension or in production) and/or across modalities (i.e., cross-modal generalisation from comprehension to production or vice versa). Two individuals with aphasia displaying co-occurring deficits in sentence comprehension and production were trained on complex, non-canonical sentences in both modalities. Two evidence-based treatment protocols were applied in a crossover intervention study with sequence of treatment phases being randomly allocated. Both participants benefited significantly from treatment, leading to uni-modal generalisation in both comprehension and production. However, cross-modal generalisation did not occur. The magnitude of uni-modal generalisation in sentence production was related to participants' sentence comprehension performance prior to treatment. These findings support the assumption of modality-specific sub-systems for sentence comprehension and production, being linked uni-directionally from comprehension to production.

**Database:** CINAHL

## **[18F]THK-5351 PET imaging in early-stage semantic variant primary progressive aphasia: a report of two cases and a literature review.**

**Author(s):** Kobayashi, Ryota; Hayashi, Hiroshi; Otani, Koichi; Kawakatsu, Shinobu; Ishiki, Aiko; Arai, Hiroyuki; Okamura, Nobuyuki

**Source:** BMC Neurology; Aug 2018; vol. 18 (no. 1)

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30089453

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**Abstract:** Background: Semantic variant primary progressive aphasia (svPPA) is a subtype of primary progressive aphasia characterized by two-way anomia and disturbance in word comprehension, with focal atrophy in the left temporal lobe. [18F]THK-5351 was originally developed to trace tau protein. However, it has recently been suggested that [18F]THK-5351 binds to monoamine oxidase B in astrocytes, which reflects gliosis. Herein, the authors present two cases involving patients with early-stage svPPA who underwent [18F]THK-5351 positron emission tomography (PET) imaging, and

examined whether [18F]THK-5351 PET imaging is more sensitive to neurodegenerative lesions than conventional imaging modalities such as magnetic resonance imaging (MRI) and cerebral blood flow (CBF)-single photon emission computed tomography (SPECT). Case Presentation: Two patients, 64- and 79-year-old men, without notable medical or family history, exhibited disturbances in word comprehension and mild anomia with fluent speech and spared repetition. In both cases, surface dyslexia was observed but prosopagnosia was absent. Although mild depression was detected in 1 of the 2 patients, no behavioral disorders were present in either case. In both cases, MRI revealed atrophy in the anterior and inferior portions of the left temporal lobe. Technetium-99-ethyl cysteinate dimer ([99mTc]ECD) SPECT revealed hypoperfusion in the left temporal lobe. Alzheimer's disease was ruled out by [11C]Pittsburgh Compound-B (PiB) PET scan. Both patients fulfilled the diagnostic criteria for svPPA. Because of mild language deficits and lack of right temporal atrophy, they were considered to be at an early stage of the disease. In both cases, [18F]THK-5351 retention was observed in bilateral temporal lobes, predominantly on the left side. Comparison of different imaging modalities suggested that [18F]THK-5351 was more sensitive in detecting neurodegenerative change in the right temporal lobe than MRI and [99mTc]ECD SPECT. Conclusions: [18F]THK-5351 retention was clearly demonstrated at an early stage of svPPA. Results of the present study suggest that [18F]THK-5351 PET imaging may facilitate very early diagnosis of the disease.

**Database:** CINAHL

### **Leukoaraiosis is independently associated with naming outcome in poststroke aphasia.**

**Author(s):** Wright, Amy; Tippett, Donna; Saxena, Sadhvi; Sebastian, Rajani; Breining, Bonnie; Faria, Andreia; Hillis, Argye E.

**Source:** Neurology; Aug 2018; vol. 91 (no. 6)

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29980639

Available at [Neurology](#) - from Ovid (Journals @ Ovid) - Remote Access

**Abstract:** Objective: To test the hypothesis that severity of leukoaraiosis in the noninfarcted hemisphere at onset is associated with poorer language outcome after poststroke aphasia independently of volume of infarct, damage to 3 critical language areas (left inferior frontal gyrus, superior longitudinal fasciculus, and superior temporal gyrus), comorbid conditions, and time since stroke. Methods: In this cross-sectional study, we evaluated naming outcome (>3 months after stroke) in 42 individuals who initially had aphasia after stroke. We rated leukoaraiosis in the right hemisphere 1 to 4 weeks from onset of stroke using the Cardiovascular Health Study rating scale. We evaluated associations between severity of leukoaraiosis and each measure of naming using Spearman correlations and evaluated the independent contributions of leukoaraiosis, lesion volume, months since onset, comorbid conditions, and damage to critical nodes of the language network on language outcomes using logistic regression. We also evaluated associations between dichotomously defined leukoaraiosis and language outcomes using  $\chi^2$  tests. Results: Severity of leukoaraiosis at onset correlated with object naming ( $\rho = -0.56$ ,  $p = 0.0008$ ) and word fluency ( $\rho = -0.37$ ,  $p = 0.01$ ) outcomes. Severe leukoaraiosis was associated with failure to achieve the highest quartile of object naming and word fluency. Severity of leukoaraiosis was associated with degree of naming outcome with the use of both measures after controlling for lesion volume, months since stroke, comorbid conditions, and damage to specific locations. Conclusion: Naming outcome after poststroke aphasia is influenced by the initial severity of right hemisphere leukoaraiosis independently of other variables. Degree of recovery from aphasia may depend on the integrity of the noninfarcted brain tissue.

**Database:** CINAHL

### **Changes in dynamic resting state network connectivity following aphasia therapy.**

**Author(s):** Duncan, E. Susan; Small, Steven L.

**Source:** Brain Imaging & Behavior; Aug 2018; vol. 12 (no. 4); p. 1141-1149

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29064020

**Abstract:** Resting state magnetic resonance imaging (rsfMRI) permits observation of intrinsic neural networks produced by task-independent correlations in low frequency brain activity. Various resting state networks have been described, with each thought to reflect common engagement in some shared function. There has been limited investigation of the plasticity in these network relationships after stroke or induced by therapy. Twelve individuals with language disorders after stroke (aphasia) were imaged at multiple time points before (baseline) and after an imitation-based aphasia therapy. Language assessment using a narrative production task was performed at the same time points. Group independent component analysis (ICA) was performed on the rsfMRI data to identify resting state networks. A sliding window approach was then applied to assess the dynamic nature of the correlations among these networks. Network correlations during each 30-second window were used to cluster the data into ten states for each window at each time point for each subject. Correlation was performed between changes in time spent in each state and therapeutic gains on the narrative task. The amount of time spent in a single one of the (ten overall) dynamic states was positively associated with behavioral improvement on the narrative task at the 6-week post-therapy maintenance interval, when compared with either baseline or assessment immediately following therapy. This particular state was characterized by minimal correlation among the task-independent resting state networks. Increased functional independence and segregation of resting state networks underlies improvement on a narrative production task following imitation-based aphasia treatment. This has important clinical implications for the targeting of noninvasive brain stimulation in post-stroke remediation.

**Database:** CINAHL

### **Computerized Training in Poststroke Aphasia: What About the Long-Term Effects? A Randomized Clinical Trial.**

**Author(s):** De Luca, Rosaria; Aragona, Bianca; Leonardi, Simona; Torrisi, Michele; Galletti, Bruno; Galletti, Franco; Accorinti, Maria; Bramanti, Placido; De Cola, Maria Cristina; Calabrò, Rocco Salvatore

**Source:** Journal of Stroke & Cerebrovascular Diseases; Aug 2018; vol. 27 (no. 8); p. 2271-2276

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29880209

**Abstract:** Background: Poststroke aphasia is a very disabling disorder, which may affect speech expression, comprehension, and reading or writing. Treatment of aphasia should be initiated as soon as possible after the brain injury; however, the improvement of language functions can occur also in the chronic phase. Materials and Methods: Thirty-two patients were randomly assigned to either an experimental group (17 patients) treated with computerized rehabilitation training (Power-Afa, Maddaloni, Campania, Italy) or a control group (15 patients), submitted to conventional speech therapy. Patients were trained 3 times a week for 8 weeks, (i.e., 24 sessions of 45 minutes each), and assessed at baseline (T0), at the end of each training (T1), and 3 months after the end of the

treatment (T2).Results: The experimental group had a significant improvement from T0 to T1 in all the outcomes, whereas for the control group patients such an improvement was significant only concerning Functional Independence Measure and ideomotor praxis. Notably, the improvements in cognitive and language functions were maintained at 3-month follow-up only in the experimental group.Conclusions: The software Power-Afa can be considered a valuable tool in improving the linguistic and cognitive recovery in patients affected by poststroke aphasia in the chronic phase. Further studies with larger samples and longer follow-up periods are needed to confirm such promising findings.

**Database:** CINAHL

### **Cerebellar atrophy and its contribution to cognition in frontotemporal dementias.**

**Author(s):** Chen, Yu; Kumfor, Fiona; Landin-romero, Ramon; Irish, Muireann; Hodges, John R.; Piguet, Olivier; Landin-Romero, Ramon

**Source:** Annals of Neurology; Jul 2018; vol. 84 (no. 1); p. 98-109

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30014499

Available at [Annals of neurology](#) - from Wiley

**Abstract:**Objective: Increasing evidence suggests that cerebellar damage impacts on cognitive functions. Frontotemporal dementias (FTDs) are neurodegenerative brain conditions, primarily affecting the frontal and/or temporal lobe. Three main phenotypes are recognized, each with a distinct clinical and cognitive profile: behavioral-variant FTD (bvFTD), semantic dementia (SD), and progressive nonfluent aphasia (PNFA). The severity of cerebellar changes and their relation to cognition in FTD, however, remain unclear. This study aimed to establish cerebellar gray matter changes on magnetic resonance imaging (MRI) and their relation to profiles of cognitive deficits in FTD subtypes.Methods: Ninety-six FTD patients (45 bvFTD, 28 SD, and 23 PNFA), meeting current clinical diagnostic criteria, and 35 age-, sex-, and education-matched controls underwent brain MRI and cognitive assessment. Cerebral and cerebellar gray matter integrity were investigated using voxel-based morphometry.Results: Compared with controls, widespread bilateral cerebellar changes were observed in all FTD subtypes, with the greatest atrophy present in bvFTD. Significant associations were found between cerebellar integrity and cognitive performance in attention and working memory in bvFTD, visuospatial function in SD, and language-motor function in PNFA. Bilateral atrophy of crus and lobule VI were most commonly associated with cognitive deficits, irrespective of FTD phenotype.Interpretation: This study is the first to identify distinct patterns of cerebellar atrophy across FTD syndromes, which in turn relate to discrete cognitive dysfunctions, after accounting for the effect of cerebral atrophy. These findings extend our understanding of the cerebellum and point to its involvement across an array of processes beyond the domain of motor function. Ann Neurol 2018;83:98-109.

**Database:** CINAHL

### **Emotional speech processing deficits in bipolar disorder: The role of mismatch negativity and P3a.**

**Author(s):** Paris, Morgwn; Mahajan, Yatin; Kim, Jeeseun; Meade, Tanya

**Source:** Journal of Affective Disorders; Jul 2018; vol. 234 ; p. 261-269

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29550743

**Abstract:**Background: Deficits in emotional prosody processing have been observed in bipolar disorder (BD). While recent neural studies have explored impaired processing of facial expressions, little is known about deficits in emotional speech processing, or the specific stages of processing at which they occur. This study examined if pre-attentive detection and attention to emotional speech is impaired in BD, relative to healthy individuals.Methods: The EEG data was collected from 14 individuals with BD and 14 healthy control (HC) participants while the auditory stimuli was presented via a passive three-stimulus oddball sequence which included emotionally (neutral, happy, sad) spoken syllables and acoustically matched nonvocal tones. Event-related potentials (ERPs) were evaluated in terms of Mismatch Negativity (MMN) and P3a (event-related potentials signals).Results: Individuals with BD showed normal MMN amplitude, but significantly delayed MMN latency and reduced P3a amplitude in response to the emotional syllables compared to HC.Limitations: Small sample size, lack of control of psychopharmacological intervention and no inclusion of an affective prosody-labelling task.Conclusions: The finding that changes in emotional speech prosody in the pre-attentive stages of processing (MMN) were unimpaired in individuals with BD; while automatic orientation towards emotionally salient speech (P3a) was reduced compared to HC, suggests that vocal emotional cues may not be recognised as salient by individuals with BD, resulting in fewer attentional resources allocation to further processing. This may lead to poorer integration of auditory emotional cues and other sensory information and negatively impact interpersonal and psychosocial functions.

**Database:** CINAHL

### **Randomized trial of iReadMore word reading training and brain stimulation in central alexia.**

**Author(s):** Woodhead, Zoe V. J.; Kerry, Sheila J.; Aguilar, Oscar M.; Yean-Hoon Ong; Hogan, John S.; Pappa, Katerina; Leff, Alex P.; Crinion, Jennifer T.; Ong, Yean-Hoon

**Source:** Brain: A Journal of Neurology; Jul 2018; vol. 141 (no. 7); p. 2127-2141

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29912350

Available at [Brain](#) - from Unpaywall

**Abstract:**Central alexia is an acquired reading disorder co-occurring with a generalized language deficit (aphasia). We tested the impact of a novel training app, 'iReadMore', and anodal transcranial direct current stimulation of the left inferior frontal gyrus, on word reading ability in central alexia. The trial was registered at [www.clinicaltrials.gov](http://www.clinicaltrials.gov) (NCT02062619). Twenty-one chronic stroke patients with central alexia participated. A baseline-controlled, repeated-measures, crossover design was used. Participants completed two 4-week blocks of iReadMore training, one with anodal stimulation and one with sham stimulation (order counterbalanced between participants). Each block comprised 34 h of iReadMore training and 11 stimulation sessions. Outcome measures were assessed before, between and after the two blocks. The primary outcome measures were reading ability for trained and untrained words. Secondary outcome measures included semantic word matching, sentence reading, text reading and a self-report measure. iReadMore training resulted in an 8.7% improvement in reading accuracy for trained words (95% confidence interval 6.0 to 11.4; Cohen's  $d = 1.38$ ) but did not generalize to untrained words. Reaction times also improved. Reading accuracy gains were still significant (but reduced) 3 months after training cessation. Anodal transcranial direct current stimulation (compared to sham), delivered concurrently with iReadMore, resulted in a 2.6% (95% confidence interval -0.1 to 5.3;  $d = 0.41$ ) facilitation for reading accuracy, both for trained and untrained words. iReadMore also improved performance on the semantic word-matching test. There was a non-significant trend towards improved self-reported reading

ability. However, no significant changes were seen at the sentence or text reading level. In summary, iReadMore training in post-stroke central alexia improved reading ability for trained words, with good maintenance of the therapy effect. Anodal stimulation resulted in a small facilitation ( $d = 0.41$ ) of learning and also generalized to untrained items. [10.1093/brain/awy138\\_video1awy138media15796149281001](https://doi.org/10.1093/brain/awy138_video1awy138media15796149281001).

**Database:** CINAHL

### **Improved language in chronic aphasia after self-delivered iPad speech therapy.**

**Author(s):** Stark, Brielle C.; Warburton, Elizabeth A.

**Source:** Neuropsychological Rehabilitation; Jul 2018; vol. 28 (no. 5); p. 818-831

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 26926872

**Abstract:**Self-delivered speech therapy provides an opportunity for individualised dosage as a complement to the speech-therapy regime in the long-term rehabilitation pathway. Few apps for speech therapy have been subject to clinical trials, especially on a self-delivered platform. In a crossover design study, the Comprehensive Aphasia Test (CAT) and Cookie Theft Picture Description (CTPD) were used to measure untrained improvement in a group of chronic expressive aphasic patients after using a speech therapy app. A pilot study ( $n = 3$ ) and crossover design ( $n = 7$ ) comparing the therapy app with a non-language mind-game were conducted. Patients self-selected their training on the app, with a recommended use of 20 minutes per day. There was significant post-therapy improvement on the CAT and CTPD but no significant improvement after the mind-game intervention, suggesting there were language-specific effects following use of the therapy app. Improvements on the CTPD, a functional measurement of speech, suggest that a therapy app can produce practical, important changes in speech. The improvements post-therapy were not due to type of language category trained or amount of training on the app, but an inverse relationship with severity at baseline and post-therapy improvement was shown. This study suggests that self-delivered therapy via an app is beneficial for chronic expressive aphasia.

**Database:** CINAHL

### **A lexical semantic hub for heteromodal naming in middle fusiform gyrus.**

**Author(s):** Forseth, Kiefer James; Kadipasaoglu, Cihan Mehmet; Conner, Christopher Richard; Hickok, Gregory; Knight, Robert Thomas; Tandon, Nitin

**Source:** Brain: A Journal of Neurology; Jul 2018; vol. 141 (no. 7); p. 2112-2126

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29860298

**Abstract:**Semantic memory underpins our understanding of objects, people, places, and ideas. Anomia, a disruption of semantic memory access, is the most common residual language disturbance and is seen in dementia and following injury to temporal cortex. While such anomia has been well characterized by lesion symptom mapping studies, its pathophysiology is not well understood. We hypothesize that inputs to the semantic memory system engage a specific heteromodal network hub that integrates lexical retrieval with the appropriate semantic content. Such a network hub has been proposed by others, but has thus far eluded precise spatiotemporal delineation. This limitation in our understanding of semantic memory has impeded progress in the

treatment of anomia. We evaluated the cortical structure and dynamics of the lexical semantic network in driving speech production in a large cohort of patients with epilepsy using electrocorticography (n = 64), functional MRI (n = 36), and direct cortical stimulation (n = 30) during two generative language processes that rely on semantic knowledge: visual picture naming and auditory naming to definition. Each task also featured a non-semantic control condition: scrambled pictures and reversed speech, respectively. These large-scale data of the left, language-dominant hemisphere uniquely enable convergent, high-resolution analyses of neural mechanisms characterized by rapid, transient dynamics with strong interactions between distributed cortical substrates. We observed three stages of activity during both visual picture naming and auditory naming to definition that were serially organized: sensory processing, lexical semantic processing, and articulation. Critically, the second stage was absent in both the visual and auditory control conditions. Group activity maps from both electrocorticography and functional MRI identified heteromodal responses in middle fusiform gyrus, intraparietal sulcus, and inferior frontal gyrus; furthermore, the spectrotemporal profiles of these three regions revealed coincident activity preceding articulation. Only in the middle fusiform gyrus did direct cortical stimulation disrupt both naming tasks while still preserving the ability to repeat sentences. These convergent data strongly support a model in which a distinct neuroanatomical substrate in middle fusiform gyrus provides access to object semantic information. This under-appreciated locus of semantic processing is at risk in resections for temporal lobe epilepsy as well as in trauma and strokes that affect the inferior temporal cortex-it may explain the range of anomic states seen in these conditions. Further characterization of brain network behaviour engaging this region in both healthy and diseased states will expand our understanding of semantic memory and further development of therapies directed at anomia.

**Database:** CINAHL

## [BRAIN INJURY/TRAUMA](#)

### **Mirror Illusion for Sensori-Motor Training in Stroke: A Randomized Controlled Trial.**

**Author(s):** Arya, Kamal Narayan; Pandian, Shanta; Vikas; Puri, Vinod

**Source:** Journal of Stroke & Cerebrovascular Diseases; Nov 2018; vol. 27 (no. 11); p. 3236-3246

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30120033

**Abstract:**Background: Poststroke, sensory deficits are not uncommon. In spite of the close association between the sensory and motor recovery, the deficits are usually underemphasized. Mirror therapy (MT), a neural-based approach for the motor deficit has not been explored for the sensory impairment. The objective of the present study was to develop and determine the effect of a MT program for sensori-motor impairment among poststroke subjects.Methods Design: Randomized controlled trial.Setting: Functional therapy laboratory of Rehabilitation Institute.Participants: Thirty-one chronic poststroke subjects (17 experimental and 14 controls), aged between 30 and 60years, with  $\leq$  diminished light touch in the hand.Outcome Measure: Semmes Weinstein Monofilament (cutaneous threshold), 2-Point discrimination test (touch discrimination) and Fugl-Meyer Assessment (hand motor recovery).Intervention: The experimental group received sensory stimulus such as tactile perception and motor tasks on the less-affected hand using mirror box. The control counterparts underwent only dose-matched conventional program. 30 sessions with a frequency of 5/week were imparted to the groups.Results: Post intervention, there was a significant ( $P < .004$ ) increase up to 30% positive touch-response for the hand quadrants among the experimental group in comparison to only 13.5% rise for the same among the controls. The

cutaneous threshold of the less-affected palm also improved significantly among the experimental subjects in comparison to the controls ( $P = .04$ ). Conclusion: MT may be considered as a promising regime for enhancing cutaneous sensibility in stroke. The mirror illusion induced by MT may be utilized for sensory and motor deficits as well as for the more-affected and less-affected hands.

**Database:** CINAHL

### **Clinical observation of 60 cases of treating cognitive disorder after cerebral injury in combination with scalp acupuncture and cognitive training.**

**Author(s):** Jinyu Du; Jiu Yin; Lin Liu; Jianlong Chen; Mingchuan He; Du, Jinyu; Yin, Jiu; Liu, Lin; Chen, Jianlong; He, Mingchuan

**Source:** Medicine; Oct 2018; vol. 97 (no. 40); p. 1-4

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30290598

Available at [Medicine](#) - from Europe PubMed Central - Open Access

Available at [Medicine](#) - from IngentaConnect - Open Access

**Abstract:** To observe the clinical effect of scalp acupuncture combined with cognitive training on cognitive disorder after cerebral injury. Around 60 cases of cerebral injury patients for hospitalization in rehabilitation department of Chongqing Three Gorges Central Hospital from July in 2015 to June in 2017 are divided into control group and treatment group of 30 cases for each at random. The control group received routine treatment and cognitive rehabilitation training for 12 weeks. The treatment group received conventional treatment, cognitive rehabilitation training, and scalp acupuncture. Acupuncture with a scalp acupuncture is provided for the treatment group besides adopting above conventional treatment and rehabilitation training method. Loewenstein Occupational Therapy Cognitive Assessment (LOTCA) score of both groups increases obviously after treatment compared with that before treatment, and there is difference ( $P < .01$ ) through contrast. And LOTCA score of treatment group is higher than that of control group ( $P < .05$ ) after treatment. Scalp acupuncture in combination with cognitive training can effectively improve cognitive disorder degree of patients with cerebral injury, and the effect is more significant compared with simple cognitive rehabilitation training, thus it is worth of research and application.

**Database:** CINAHL

### **Modern Interdisciplinary and Interhospital Acute Stroke Therapy-What Patients Think About It and What They Really Understand.**

**Author(s):** Pressler, Hannah; Reich, Arno; Schulz, Jörg Bernhard; Nikoubashman, Omid; Willmes, Klaus; Habib, Pardes; Bach, Jan-Philipp; Schulz, Jörg Bernhard

**Source:** Journal of Stroke & Cerebrovascular Diseases; Oct 2018; vol. 27 (no. 10); p. 2669-2676

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29970323

**Abstract:** Background: Access to reperfusion therapies in patients with large vessel occluding acute ischemic stroke demands process reorganization and optimization. Neurovascular networks are being built up to provide 24/7 endovascular stroke therapy service. In times of an increasingly complex stroke rescue chain little is known about patients' and their relatives' treatment awareness. Methods: All patients, who received any kind of acute reperfusion treatment between January and August 2017 in the university hospital Aachen, and their proxies, were included in the

survey. Patients were either primarily or secondarily transferred. Results: For all questions regarding stroke treatment patients and their caregivers provided concurring answers. 40% of both patients and caregivers did not understand the treatment that was performed. Finally, patients who perceived on their own that stroke detection was delayed had significantly longer onset to door times than patients who did not have this impression. Conclusions: This study showed that patients' and proxies' answers correlated significantly. In case of patients' unavailability extrapolation of treatment satisfaction from answers by proxies might be permitted. High percentages of patients and caregivers do not understand relevant information, possibly due to limits of communication in an emergency setting or deficits in communication during the hospital stay. More emphasis should be laid on providing further information during the hospital stay.

**Database:** CINAHL

### **Rheumatoid meningitis presenting with a stroke-like attack treated with recombinant tissue plasminogen activator: a case presentation.**

**Author(s):** Akamatsu, Masashi; Maki, Futaba; Akiyama, Hisanao; Hara, Daisuke; Hoshino, Masashi; Hasegawa, Yasuhiro

**Source:** BMC Neurology; Sep 2018; vol. 18 (no. 1)

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30189853

Available at [BMC neurology](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [BMC neurology](#) - from BioMed Central

Available at [BMC neurology](#) - from Europe PubMed Central - Open Access

Available at [BMC neurology](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Background: Rheumatoid meningitis presenting with a stroke-like attack (RMSA) is a rare manifestation of rheumatoid arthritis (RA). When the patients arrive within the time-window for recombinant tissue plasminogen activator (rt-PA) infusion therapy, no diagnostic protocol has been established. Case Presentation: A 55-year-old woman was brought by ambulance to our hospital with complaints of sudden-onset dysarthria and left arm numbness. The National Institutes of Health Stroke Scale (NIHSS) score was 5, and the Alberta Stroke Program Early CT Score was 8. She was diagnosed with acute embolic stroke. At 4 h, 6 min after onset, intravenous administration of rt-PA (alteplase, 0.6 mg/kg) was started. Her neurological deficits improved rapidly, and her NIHSS score was 1. Brain MRI was then performed. There was no hemorrhagic transformation, but the MRI findings were not compatible with ischemic stroke. She had a past history of RA diagnosed 6 months earlier, and she had been treated with methotrexate (10 mg daily). She was diagnosed with RMSA, and continuous infusion of methylprednisolone 1000 mg daily was started for 3 days. The high signal intensity on the FLAIR image disappeared. Conclusion: CT-based decision-making for rt-PA injection is reasonable, but MRI is needed for the early diagnosis of RMSA. In this case, it is particularly important that neither adverse events nor bleeding complications were observed, suggesting the safety of CT-based thrombolytic therapy in RMSA.

**Database:** CINAHL

### **Tele-Rehabilitation after Stroke: An Updated Systematic Review of the Literature.**

**Author(s):** Sarfo, Fred S.; Ulasavets, Uladzislau; Opare-Sem, Ohene K.; Ovbiagele, Bruce

**Source:** Journal of Stroke & Cerebrovascular Diseases; Sep 2018; vol. 27 (no. 9); p. 2306-2318

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29880211

**Abstract:**Background: Tele-rehabilitation for stroke survivors has emerged as a promising intervention for remotely supervised administration of physical, occupational, speech, and other forms of therapies aimed at improving motor, cognitive, and neuropsychiatric deficits from stroke.Objective: We aimed to provide an updated systematic review on the efficacy of tele-rehabilitation interventions for recovery from motor, higher cortical dysfunction, and poststroke depression among stroke survivors.Methods: We searched PubMed and Cochrane library from January 1, 1980 to July 15, 2017 using the following keywords: "Telerehabilitation stroke," "Mobile health rehabilitation," "Telemedicine stroke rehabilitation," and "Telerehabilitation." Our inclusion criteria were randomized controlled trials, pilot trials, or feasibility trials that included an intervention group that received any tele-rehabilitation therapy for stroke survivors compared with a control group on usual or standard of care.Results: This search yielded 49 abstracts. By consensus between 2 investigators, 22 publications met the criteria for inclusion and further review. Tele-rehabilitation interventions focused on motor recovery (n = 18), depression, or caregiver strain (n = 2) and higher cortical dysfunction (n = 2). Overall, tele-rehabilitation interventions were associated with significant improvements in recovery from motor deficits, higher cortical dysfunction, and depression in the intervention groups in all studies assessed, but significant differences between intervention versus control groups were reported in 8 of 22 studies in favor of tele-rehabilitation group while the remaining studies reported nonsignificant differences.Conclusion: This updated systematic review provides evidence to suggest that tele-rehabilitation interventions have either better or equal salutary effects on motor, higher cortical, and mood disorders compared with conventional face-to-face therapy.

**Database:** CINAHL

### **Acute Stroke Care in Dementia: A Cohort Study from the Swedish Dementia and Stroke Registries.**

**Author(s):** Zupanic, Eva; Kåreholt, Ingemar; Norrving, Bo; Secnik, Juraj; von Euler, Mia; Winblad, Bengt; Religa, Dorota; Kramberger, Milica Gregoric; Johnell, Kristina; Eriksdotter, Maria; Garcia-Ptacek, Sara

**Source:** Journal of Alzheimer's Disease; Sep 2018; vol. 66 (no. 1); p. 185-194

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30248059

**Abstract:**Background: Previous studies have shown that patients with dementia receive less testing and treatment for stroke.Objectives: Our aim was to investigate hospital management of acute ischemic stroke in patients with and without dementia.Methods: Retrospective analysis of prospectively collected data 2010-2014 from the Swedish national dementia registry (SveDem) and the Swedish national stroke registry (Riksstroke). Patients with dementia who suffered an acute ischemic stroke (AIS) (n = 1,356) were compared with matched non-dementia AIS patients (n = 6,755). Outcomes included length of stay in a stroke unit, total length of hospitalization, and utilization of diagnostic tests and assessments.Results: The median age at stroke onset was 83 years. While patients with dementia were equally likely to be directly admitted to a stroke unit as their non-dementia counterparts, their stroke unit and total hospitalization length were shorter (10.5 versus 11.2 days and 11.6 versus 13.5, respectively,  $p < 0.001$ ). Dementia patients were less likely to receive carotid ultrasound (OR 0.36, 95% CI [0.30-0.42]) or undergo assessments by the interdisciplinary team members (physiotherapists, speech therapists, occupational therapists;  $p < 0.05$  for all adjusted models). However, a similar proportion of patients received CT imaging (97.4% versus 98.6%,  $p = 0.001$ ) and a swallowing assessment (90.7% versus 91.8%,  $p = 0.218$ ).Conclusions: Patients with

dementia who suffer an ischemic stroke have equal access to direct stroke unit care compared to non-dementia patients; however, on average, their stay in a stroke unit and total hospitalization are shorter. Dementia patients are also less likely to receive specific diagnostic tests and assessments by the interdisciplinary stroke team.

**Database:** CINAHL

### **Therapeutic Management of the Overlapping Syndromes of Atypical Parkinsonism.**

**Author(s):** Giagkou, Nikolaos; Stamelou, Maria

**Source:** CNS Drugs; Sep 2018; vol. 32 (no. 9); p. 827-837

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30051337

**Abstract:** Progressive supranuclear palsy, corticobasal degeneration and multiple system atrophy account for approximately 10% of neurodegenerative parkinsonism. Considerable clinical overlap exists between these disorders that extends to features considered characteristic of each disease. Clinical diagnostic criteria have attempted to increase the accuracy of clinical diagnosis as accurate diagnosis is necessary to inform prognosis and to facilitate the recognition of disease-modifying treatments. Currently no such treatment exists. Nevertheless, many clinical trials aiming to change the natural history of these diseases are ongoing. The spread and accumulation of abnormal proteins are among the pathophysiological mechanisms targeted. For the time being, however, only symptomatic treatment is available. Levodopa is used to treat parkinsonism, but patients usually show a poor or transient response. Amantadine is also used in practice for the same indication. Botulinum toxin can alleviate focal dystonic manifestations. Addressing non-motor manifestations is limited by the potential of available drugs to impact on other aspects of the disease. Most of the new symptomatic formulations under study are focused on orthostatic hypotension in multiple system atrophy. Exercise, occupational, physical, and speech therapy and psychotherapy should always accompany pharmacological approaches.

**Database:** CINAHL

### **Social functioning following pediatric stroke: contribution of neurobehavioral impairment.**

**Author(s):** Greenham, Mardee; Gordon, Anne L.; Cooper, Anna; Ditchfield, Michael; Coleman, Lee; Hunt, Rod W.; Mackay, Mark T.; Monagle, Paul; Anderson, Vicki

**Source:** Developmental Neuropsychology; Aug 2018; vol. 43 (no. 4); p. 312-328

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29482371

**Abstract:** Pediatric stroke can result in long-term neurobehavioral impairments including cognitive, language, and motor deficits, all of which may disrupt the normal development of social skills. This study aimed to examine specific components of social function at 5-year poststroke at a group and individual level and explore the contribution of neurobehavioral impairment. Thirty-one children with arterial ischemic stroke participated in the study. Assessment included parent-rated questionnaires measuring social adjustment and social participation as well as behavior and fatigue. Children underwent testing of social cognition and neurobehavioral abilities (intellectual function, attention, pragmatic language, motor function, and neurological impairment). Group means for social function were generally within the normal range, with social adjustment poorer than

normative expectations. Examination of impairment rates showed a significant proportion of children had impaired function across social domains. Childhood stroke was associated with poorer social adjustment and a range of neurobehavioral outcomes, compared to neonatal stroke. Social function was found to be impacted by fatigue and intellectual function, but not by attention, pragmatic language, behavior, motor function, or neurological impairment.

**Database:** CINAHL

### **Feasibility trial of an early therapy in perinatal stroke (eTIPS).**

**Author(s):** Basu, Anna Purna; Pearse, Janice; Watson, Rose; Dulson, Pat; Baggaley, Jessica; Wright, Blythe; Howel, Denise; Vale, Luke; Mitra, Dipayan; Embleton, Nick; Rapley, Tim

**Source:** BMC Neurology; Jul 2018; vol. 18 (no. 1)

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30037324

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Available at [BMC neurology](#) - from BioMed Central

Available at [BMC neurology](#) - from Europe PubMed Central - Open Access

Available at [BMC neurology](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Perinatal stroke (PS) affects up to 1/2300 infants and frequently leads to unilateral cerebral palsy (UCP). Preterm-born infants affected by unilateral haemorrhagic parenchymal infarction (HPI) are also at risk of UCP. To date no standardised early therapy approach exists, yet early intervention could be highly effective, by positively influencing processes of activity-dependent plasticity within the developing nervous system including the corticospinal tract. Our aim was to test feasibility and acceptability of an "early Therapy In Perinatal Stroke" (eTIPS) intervention, aiming ultimately to improve motor outcome.Methods: Design: Feasibility trial, North-East England, August 2015-September 2017. Participants were infants with PS or HPI, their carers and therapists. The intervention consisted of a parent-delivered lateralised therapy approach starting from term equivalent age and continuing until 6 months corrected age. The outcome measures were feasibility (recruitment and retention rates) and acceptability of the intervention (parental questionnaires including the Warwick-Edinburgh Mental Wellbeing Scale (WEBWMS), qualitative observations and in-depth interviews with parents and therapists). We also reviewed clinical imaging data and undertook assessments of motor function, including the Hand Assessment for Infants (HAI). Assessments were also piloted in typically developing (TD) infants, to provide further information on their ease of use and acceptability.Results: Over a period of 18 months we screened 20 infants referred as PS/HPI: 14 met the inclusion criteria and 13 took part. At 6 months, 11 (85%) of those enrolled had completed the final assessment. Parents valued the intervention and found it acceptable and workable. There were no adverse events related to the intervention. We recruited 14 TD infants, one of whom died prior to undertaking any assessments and one of whom was subsequently found to have a condition affecting neurodevelopmental progress: thus, data for 12 TD infants was analysed to 6 months. The HAI was well tolerated by infants and highly valued by parents. Completion rates for the WEBWMS were high and did not suggest any adverse effect of engagement in eTIPS on parental mental wellbeing.Conclusion: The eTIPS intervention was feasible to deliver and acceptable to families. We plan to investigate efficacy in a multicentre randomised controlled trial.Trial Registration: ISRCTN12547427 (registration request submitted 28/05/2015; retrospectively registered, 30/09/2015).

**Database:** CINAHL

**Preliminary evaluation of the reliability, validity and feasibility of the arm activity measure - Thai version (ArmA-TH) in cerebrovascular patients with upper limb hemiplegia.**

**Author(s):** Buntragulpoontawee, Montana; Euawongyarti, Patreeya; Wongpakaran, Tinakon; Ashford, Stephen; Rattanamanee, Somprarthana; Khunachiva, Jeeranan

**Source:** Health & Quality of Life Outcomes; Jul 2018; vol. 16 (no. 1)

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30012165

Available at [Health and quality of life outcomes](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [Health and quality of life outcomes](#) - from BioMed Central

Available at [Health and quality of life outcomes](#) - from Europe PubMed Central - Open Access

Available at [Health and quality of life outcomes](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Upper limb hemiplegia following cerebrovascular diseases can result in significant functional limitation. To assess such functional disturbance requires a comprehensive, valid and reliable tool. The Arm Activity Measure (ArmA) is a comprehensive, valid and reliable self-report questionnaire to assess real-life function for upper limb hemiplegia. However, it has never been translated for use in different languages. The purpose of this study is to translate and cross-culturally adapt the Arm Activity Measure (ArmA) questionnaire into a Thai version and to evaluate content validity, internal consistency and feasibility. Methods: The ArmA was translated and culturally adapted according to published cross-cultural adaptation guidelines resulting in the Thai version of ArmA (ArmA-TH). Forty Thai patients with upper limb hemiplegia resulting from cerebrovascular disorders participated in field-testing of the ArmA-TH. Its feasibility was evaluated. Content validity index for item (I-CVI) and score (S-CVI) were examined. Inter-rater reliability was evaluated by Gwet's AC2. Internal consistency was measured using Cronbach's alpha coefficient. Results: Forty patients (29 males, 11 females) with upper limb spasticity due to stroke or TBI were included. The average age of patients was 54.5 years (SD 15.0). Twenty-seven patients (67.5%) completed the questionnaire within 5 min or less, average time taken was 4.45 (1.73) min. For both subscales, patients reported the ArmA-TH to be relevant (85%) and easy to use (67.5%). More than 80% of patients found the passive subscale useful, almost 80% found the active subscale useful. Overall S-CVI was 0.83, S-CVI for passive and active function subscale was 0.79 and 0.86 respectively. The inter-rater reliability coefficients for ArmA-TH was 0.81. Cronbach's alpha was 0.90 for the overall ArmA, 0.89 and 0.88 for the passive and active function subscales. Conclusions: The ArmA-TH was a feasible self-report questionnaire to assess hemiplegic upper limb function with good content validity, inter-rater reliability and internal consistency.

**Database:** CINAHL

**Stroke 112: A Universal Stroke Awareness Program to Reduce Language and Response Barriers.**

**Author(s):** Zhao, Jing; Eckenhoff, Maryellen F.; Sun, Wei-Zen; Liu, Renyu

**Source:** Stroke (00392499); Jul 2018; vol. 49 (no. 7); p. 1766-1769

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29925649

Available at [Stroke](#) - from Ovid (Journals @ Ovid) - Remote Access

**Abstract:**Background and Purpose: To improve stroke awareness and reduce life-threatening prehospital delays worldwide, a universal stroke educational program is needed. To meet this unmet need, we developed a universal program without language barriers and tested its acceptance in Taiwan, where Chinese is the native language. Methods: Stroke 112 was developed using the universal emergency phone number, 112. The numbers imply an emergency and correspond to the 3 stroke recognition signs used in FAST (Face, Arm, Speech, and Time): 1 uneven face (crooked mouth); 1 weak arm (arm weakness); 2 incoherent lips (slurred speech). An online survey was used to determine the acceptance of the Stroke 112 program compared with that of FAST in Chinese. The surveys were delivered using SurveyMonkey (<http://www.surveymonkey.com>) on 2 separate occasions in Taiwan; in August 2017 for an initial estimation of the acceptance of Stroke 112 and in March 2018, 2 weeks after the official release of Stroke 112 in Taiwan, including a special introductory lecture for neurologists hosted by the STARS-Taiwan (Stroke Treatment and Research Society-Taiwan). Results: The initial survey with 465 survey responders, 54.6% thought that Stroke 112 was easier to remember for people in Taiwan compared with FAST (41.2%). After Stroke 112's official release in Taiwan, 610 individuals completed the survey, and the majority (66.4%) thought that Stroke 112 was easier to remember, a significant increase compared with the initial survey ( $P=0.0001$ ). Among the 130 neurologists who attended the Stroke 112 introductory lecture, 55 completed the online survey. A greater acceptance of Stroke 112 (74.6%) compared with FAST (16.4%) was observed among these 55 neurologists ( $P=0.0001$ ). Conclusions: Stroke 112, a universal stroke educational program without language barriers was developed. It could potentially be implemented worldwide, especially where 112 is used as an emergency phone number.

**Database:** CINAHL

## [CANCER](#)

### **Most National Cancer Institute-Designated Cancer Center Websites Do Not Provide Survivors with Information About Cancer Rehabilitation Services.**

**Author(s):** Silver, Julie K.; Raj, Vishwa S.; Fu, Jack B.; Wisotzky, Eric M.; Smith, Sean Robinson; Knowlton, Sasha E.; Silver, Alexander J.

**Source:** Journal of Cancer Education; Oct 2018; vol. 33 (no. 5); p. 947-953

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28064402

Available at [Journal of Cancer Education](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [Journal of Cancer Education](#) - from EBSCO (MEDLINE Complete)

**Abstract:**This study is the first to evaluate the existence and quality of patient-related cancer rehabilitation content on the websites of National Cancer Institute (NCI)-Designated Cancer Centers. In 2016, a team of cancer rehabilitation physicians (physiatrists) conducted an analysis of the patient-related rehabilitation content on the websites of all NCI-Designated Cancer Centers that provide clinical care ( $N = 62$  of 69). The main outcome measures included qualitative rating of the ease of locating descriptions of cancer rehabilitation services on each website, followed by quantitative rating of the quality of the cancer rehabilitation descriptions found. More than 90% of NCI-Designated Cancer Centers providing clinical care did not have an easily identifiable patient-focused description of or link to cancer rehabilitation services on their website. Use of a website's search box and predetermined terms yielded an additional 13 descriptions (21%). Therefore,

designers of nearly 70% of the websites evaluated overlooked an opportunity to present a description of cancer rehabilitation services. Moreover, only 8% of the websites included accurate and detailed information that referenced four core rehabilitation services (physiatry and physical, occupational and speech therapy). Further research is needed to confirm the presence of cancer rehabilitation services and evaluate access to these types of services at NCI-Designated Cancer Centers providing clinical care.

**Database:** CINAHL

## DYSPHONIA

### **Follow-up analysis of voice quality in patients with late-onset Pompe disease.**

**Author(s):** Szklanny, Krzysztof; Tylki-Szymańska, Anna

**Source:** Orphanet Journal of Rare Diseases; Oct 2018; vol. 13 (no. 1)

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30367637

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**Abstract:**Background: Late-onset Pompe disease (LOPD) is a metabolic myopathy disorder characterized by progressive muscle damage and among others dysfunction of the voice apparatus, which affects speech and - above all - voice quality. Symptoms include dysphonia, instability, glottic insufficiency, and tense voice. The aim of this study was to evaluate and compare voice quality disorder in a group of 15 LOPD patients who were first examined in 2014 and then re-examined in 2017. Methods: In both 2014 and 2017, the same 15 LOPD patients, ranging in age from 15 to 57, from 10 different families, underwent the following examinations: perceptual assessment of voice quality on the RBH scale, electroglottographic recordings, and acoustic recordings. All the patients were on enzyme replacement therapy (ERT). Results: Three years after the 2014 study, the LOPD patients demonstrated a deterioration in voice quality. A statistically significant increase in glottic insufficiency ( $p = 0.0399$ ) and a shift towards tense voice ( $p = 0.0417$ ) were observed. Two patients - out of three who had received presymptomatic treatment - demonstrated stable voice quality compared with 2014. Conclusions: The results suggest increased muscle weakness and progression of LOPD. The parameters Closed Quotient (calculated on the basis of an electroglottographic signal) and Peak Slope (calculated on the basis of an acoustic signal) proved to be the most sensitive.

**Database:** CINAHL

### **A questionnaire to assess olfactory rehabilitation for laryngectomized patients (Provox voice prosthesis users) in Japan.**

**Author(s):** Ishikawa, Yukinobu; Yanagi, Yukiko; Suzuki, Michi; Konomi, Ujimoto

**Source:** Auris Nasus Larynx; Oct 2018; vol. 45 (no. 5); p. 1080-1085

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29428493

**Abstract:**Objective: We used a questionnaire to investigate olfactory function and the present state of olfactory rehabilitation for laryngectomized patients in Japan. Methods: This study was conducted using a questionnaire survey. We mailed questionnaires to 190 members of a Japanese laryngectomized patient group (the nonprofit organization YOUSAY-KAI). The survey queried the following items: (1) basic information (age, sex, alaryngeal speech method, etc.); (2) questions about olfactory rehabilitation, such as the individual's experience of olfactory rehabilitation, the number of days from laryngectomy to the start of olfactory rehabilitation, and the location of rehabilitation (i.e., hospital or patient association); (3) free comments; and (4) the self-administered Odor Questionnaire (SAOQ). Results: We received 121/190 questionnaires by the submission deadline. Of these, 105 questionnaires were valid. All 105 responders used the Provox voice prosthesis as the alaryngeal speech method. Only 4.7% (5/105) of the patients received olfactory rehabilitation in hospitals. Many comments in the free comment column included demands for olfactory rehabilitation such as "I want to know where we can have olfactory rehabilitation" and "I want to have rehabilitation if olfaction recovers." The SAOQ score was significantly higher in the rehabilitation group (mean, 42.5%) compared to the nonrehabilitation group (mean, 22.1%) ( $p < 0.05$ ). There was no correlation between the SAOQ score and the number of days from laryngectomy to the start of rehabilitation ( $r = 0.08$ ,  $p = 0.76$ ). CONCLUSION: Patient demand for olfactory rehabilitation is strong, but this therapy is not widely offered to laryngectomized patients in Japan. Notably, the SAOQ scores showed that olfactory rehabilitation may have an effect, even if it is initiated after laryngectomy. We believe that when patients choose voice prosthesis for speech, their olfaction deteriorates unless they undergo olfactory rehabilitation separately from speech rehabilitation. It is therefore necessary to administer olfactory rehabilitation for laryngectomized patients who have never received olfactory rehabilitation, as well as for patients scheduled to undergo laryngectomy.

**Database:** CINAHL

### **Systematic Review of Voice Outcomes for Injection Laryngoplasty Performed under Local vs General Anesthesia.**

**Author(s):** Ballard, Daniel P; Abramowitz, Jason; Sukato, Daniel C; Bentsianov, Boris; Rosenfeld, Richard M

**Source:** Otolaryngology-Head & Neck Surgery; Oct 2018; vol. 159 ; p. 608-614

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29989849

**Abstract:**Objective To assist otolaryngologists in counseling patients with hoarseness who would benefit from injection laryngoplasty on whether or not to perform the procedure in the office vs the operating room. Data Sources Cochrane library, CINAHL, PubMed, and EMBASE. Review Methods Systematic review using Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) reporting standards of English-language articles that compared voice outcomes for in-office and in the operating room injection laryngoplasty. Two independent investigators assessed study eligibility, rated the quality using Methodological Index for Non-Randomized Studies (MINORS), and abstracted data for comparative analysis. Results Of 689 initial studies, 4 observational, comparative studies met inclusion criteria, with follow-up of 2 weeks to 12 months postinjection. Laryngoplasty was most commonly performed for vocal fold immobility with varied injectable materials (micronized dermis, hyaluronic acid, and calcium hydroxyapatite). Follow-up ranged from 2 weeks to 12 months. Voice outcomes improved in all studies, with comparable improvement for patients injected in the office vs the operating room ( $P = .42$  to  $P = .88$ ). Meta-

analysis of 3 studies showed no difference in Voice Handicap Index-10 voice outcomes by treatment setting (standardized mean difference -0.11, P = .441), with the 95% confidence interval (-0.405 to 0.176), making it unlikely that anything larger than a small or trivial difference was missed. Conclusion Our systematic review makes it unlikely that meaningful clinical differences exist in postprocedure voice outcomes for injection laryngoplasty in the office vs the operating room.

**Database:** CINAHL

### **Is voice therapy effective for the treatment of dysphonic patients with benign vocal fold lesions?**

**Author(s):** Ogawa, Makoto; Inohara, Hidenori

**Source:** Auris Nasus Larynx; Aug 2018; vol. 45 (no. 4); p. 661-666

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28844607

**Abstract:**Objective: To update our knowledge regarding the effectiveness of voice therapy for the treatment of vocal disturbance associated with benign vocal fold lesions, including vocal polyps, nodules and cysts, and for determining the utility of voice therapy in treating organic voice disorders, while highlighting problems for the future development of this clinical field.Methods: We conducted a review of the most recent literature on the therapeutic effects of voice therapy, vocal hygiene education or direct vocal training on vocal quality, the lesion appearance and discomfort felt by patients due to the clinical entity of benign vocal fold mass lesions.Results: Although voice therapy is principally indicated for the treatment of functional dysphonia without any organic abnormalities in the vocal folds, a number of clinicians have attempted to perform voice therapy even in dysphonic patients with benign mass lesions in the vocal folds. The two major possible reasons for the effectiveness of voice therapy on vocal disturbance associated with benign vocal fold lesions are hypothesized to be the regression of lesions and the correction of excessive/inappropriate muscle contraction of the phonatory organs. According to the current literature, a substantial proportion of vocal polyps certainly tend to shrink after voice therapy, but whether or not the regression results from voice therapy, vocal hygiene education or a natural cure is unclear at present due to the lack of controlled studies comparing two groups with and without interventions. Regarding vocal nodules, no studies have investigated the effectiveness of voice therapy using proper experimental methodology. Vocal cysts are difficult to cure by voice therapy without surgical excision according to previous studies. Evidences remains insufficient to support the use of voice therapy against benign vocal fold lesions.Conclusion: Evidences at present is therefore still insufficient to support the use of voice therapy for the treatment of benign vocal fold lesions.

**Database:** CINAHL

### **Consensus-Based Attributes for Identifying Patients With Spasmodic Dysphonia and Other Voice Disorders.**

**Author(s):** Ludlow, Christy L.; Domangue, Rickie; Sharma, Dinesh; Jinnah, H. A.; Perlmutter, Joel S.; Berke, Gerald; Sapienza, Christine; Smith, Marshall E.; Blumin, Joel H.; Kalata, Carrie E.; Blindauer, Karen; Johns, Michael; Hapner, Edie; Harmon, Archie; Paniello, Randal; Adler, Charles H.; Crujido, Lisa; Lott, David G.; Bansberg, Stephen F.; Barone, Nicholas

**Source:** JAMA Otolaryngology-Head & Neck Surgery; Aug 2018; vol. 144 (no. 8); p. 657-665

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29931028

Available at [JAMA otolaryngology-- head & neck surgery](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Importance: A roadblock for research on adductor spasmodic dysphonia (ADSD), abductor SD (ABSD), voice tremor (VT), and muscular tension dysphonia (MTD) is the lack of criteria for selecting patients with these disorders.Objective: To determine the agreement among experts not using standard guidelines to classify patients with ABSD, ADSD, VT, and MTD, and develop expert consensus attributes for classifying patients for research.Design, Setting and Participants: From 2011 to 2016, a multicenter observational study examined agreement among blinded experts when classifying patients with ADSD, ABSD, VT or MTD (first study). Subsequently, a 4-stage Delphi method study used reiterative stages of review by an expert panel and 46 community experts to develop consensus on attributes to be used for classifying patients with the 4 disorders (second study). The study used a convenience sample of 178 patients clinically diagnosed with ADSD, ABSD, VT MTD, vocal fold paresis/paralysis, psychogenic voice disorders, or hypophonia secondary to Parkinson disease. Participants were aged 18 years or older, without laryngeal structural disease or surgery for ADSD and underwent speech and nasolaryngoscopy video recordings following a standard protocol.Exposures: Speech and nasolaryngoscopy video recordings following a standard protocol.Main Outcomes and Measures: Specialists at 4 sites classified 178 patients into 11 categories. Four international experts independently classified 75 patients using the same categories without guidelines after viewing speech and nasolaryngoscopy video recordings. Each member from the 4 sites also classified 50 patients from other sites after viewing video clips of voice/laryngeal tasks. Interrater  $\kappa$  less than 0.40 indicated poor classification agreement among rater pairs and across recruiting sites. Consequently, a Delphi panel of 13 experts identified and ranked speech and laryngeal movement attributes for classifying ADSD, ABSD, VT, and MTD, which were reviewed by 46 community specialists. Based on the median attribute rankings, a final attribute list was created for each disorder.Results: When classifying patients without guidelines, raters differed in their classification distributions (likelihood ratio,  $\chi^2 = 107.66$ ), had poor interrater agreement, and poor agreement with site categories. For 11 categories, the highest agreement was 34%, with no  $\kappa$  values greater than 0.26. In external rater pairs, the highest  $\kappa$  was 0.23 and the highest agreement was 38.5%. Using 6 categories, the highest percent agreement was 73.3% and the highest  $\kappa$  was 0.40. The Delphi method yielded 18 attributes for classifying disorders from speech and nasolaryngoscopic examinations.Conclusions and Relevance: Specialists without guidelines had poor agreement when classifying patients for research, leading to a Delphi-based development of the Spasmodic Dysphonia Attributes Inventory for classifying patients with ADSD, ABSD, VT, and MTD for research.

**Database:** CINAHL

### **Sociodemographic Characteristics and Treatment Response Among Aging Adults With Voice Disorders in the United States.**

**Author(s):** Bertelsen, Caitlin; Zhou, Sheng; Hapner, Edie R.; Johns III, Michael M.; Johns, Michael M 3rd

**Source:** JAMA Otolaryngology-Head & Neck Surgery; Aug 2018; vol. 144 (no. 8); p. 719-726

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30003217

Available at [JAMA otolaryngology-- head & neck surgery](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Importance: Aging adults face unique barriers to care and have unique health care needs with a high prevalence of chronic conditions. A high proportion of individuals in this group have voice disorders, in part due to age-related changes in laryngeal anatomy and physiologic features. These disorders contribute significantly to health care costs and remain poorly understood.Objective: To describe sociodemographic characteristics and response to treatment

among aging adults with voice disorders. Design, Setting, and Participants: A cross-sectional study using the 2012 National Health Interview Survey was used to evaluate adults who reported voice disorders in the past 12 months. Self-reported demographics and data regarding health care visits for voice disorders were analyzed. Statistical analysis was conducted from March 1, 2017, to February 1, 2018. Main Outcomes and Measures: Self-reported voice disorders, whether or not treatment was sought, which types of professionals were seen for treatment, and whether or not the voice disorder improved after treatment. Results: Among 41.7 million adults in the United States 65 years or older, 4.20 million (10.1%; 2 683 199 women and 1 514 909 men; mean [SE] age, 74.5 [0.3] years) reported having voice disorders. Of those with voice disorders, 10.0% (95% CI, 8.3%-11.7%) sought treatment. Of individuals seeking treatment, 22.1% (95% CI, 7.9%-36.3%) saw an otolaryngologist and 24.3% (95% CI, 10.6%-38.0%) saw a speech language pathologist. By controlling for race/ethnicity, income, sex, and geography, it was found that men were less likely than women to report voice disorders (36.1% [95% CI, 31.7%-40.5%] vs 63.9% [95% CI, 59.5%-68.3%]; odds ratio, 0.70; 95% CI, 0.57-0.86). Race/ethnicity, income, and geography were not significantly associated with the likelihood that an individual 65 years or older reported voice disorders. A greater percentage of elderly adults seeking treatment than not seeking treatment reported improvement in symptoms (32.4%; 95% CI, 17.9%-47.0% vs 15.6%; 95% CI, 10.4%-20.8%). Among adults treated for a voice disorder, a lower proportion of adults 65 years or older reported improvement in symptoms with treatment compared with adults younger than 65 years (32.4%; 95% CI, 17.9%-47.0% vs 56.0%; 95% CI, 42.5%-69.6%). Conclusions and Relevance: A small percentage of older adults with voice disorders seek treatment; even fewer are treated by an otolaryngologist or a speech language pathologist. A greater percentage of those who undergo treatment experienced symptomatic improvement compared with those who did not undergo treatment. These trends highlight the need for greater access to and awareness of services available to older adults with voice disorders.

**Database:** CINAHL

### **Is insufficient pulmonary air support the cause of dysphonia in chronic obstructive pulmonary disease?**

**Author(s):** Hassan, Megahed M.; Emam, Ahmed Mamdouh; Hussein, Mona T.; Rashad, Usama M.; Rezk, Ibrahim; Awad, Al Hussein

**Source:** Auris Nasus Larynx; Aug 2018; vol. 45 (no. 4); p. 807-814

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29325856

**Abstract:** Objective: Optimal pulmonary air support is essential pre-requisite for efficient phonation. The objective is to correlate pulmonary and vocal functions in chronic obstructive pulmonary disease (COPD) to find out whether the reduced pulmonary function per se could induce dysphonia. Methods: In this prospective case-control study, sixty subjects with stable COPD underwent evaluation of pulmonary and vocal functions. The pulmonary functions measured include {Forced vital capacity (FVC), forced expiratory volume in the first second (FEV1), FEV1/FVC ratio, peak expiratory flow (PEF), maximum mid-expiratory flow (MMEF)}. The vocal functions were {jitter, shimmer, noise-to-harmonic ratio, pitch perturbation quotient, amplitude perturbation quotient, maximum phonation time (MPT), sound pressure level, phonatory efficiency, resistance and power. A control group (n=35) underwent the same measurements. These functions were compared between subjects and controls. Also, correlation of the vocal and pulmonary functions was conducted. Results: Thirty five (58.3%) of COPD subjects have dysphonia. The pulmonary functions were lower in all COPD group than in the control group (P<0.001 for all parameters). Also, the FVC, FEV1, PEF and MMEF % of predicted values were significantly lower in subjects with dysphonia (n=35) than those without dysphonia (n=25) with P values 0.0018, <0.001, 0.0011 and 0.0026

respectively. In addition, the MPT in all subjects showed positive correlations to the 5 pulmonary functions ( $P=0.004$  for FEV1/FVC ratio and  $P<0.001$  for the rest). Also, the phonatory efficiency showed significant positive correlations with the pulmonary functions FVC, FEV1, PEF and MMEF ( $P=0.001$ ,  $0.001$ ,  $0.002$  and  $0.001$  respectively). Unlike efficiency, the phonatory resistance revealed significant negative correlations with these pulmonary functions in the same order ( $P=0.001$ ,  $0.003$ ,  $0.002$ ,  $0.001$  respectively). Conclusion: Dysphonia is a common comorbidity with COPD which attributed to multifactorial etiologies. The lower the pulmonary function in COPD patients is the more likely to have dysphonia. Decreased pulmonary function was associated with reduced MPT and phonatory efficiency but with increased phonatory resistance. The reduced pulmonary functions in COPD can be the underlying cause of the altered vocal function and dysphonia. Great part of this dysphonia is functional, and hence, can be corrected by voice therapy in compensated subjects. Further researches are needed to evaluate the efficacy of voice therapy in these patients.

**Database:** CINAHL

## [HYPOPLASIA](#)

### **Middle-ear disease in children with cleft palate.**

**Author(s):** Karanth, Tulasi Kota; Whittemore, Kenneth R

**Source:** Auris Nasus Larynx; Dec 2018; vol. 45 (no. 6); p. 1143-1151

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29764722

**Abstract:** Objective: The objective of this review is to summarize all aspects of middle ear diseases in children with cleft palate (CP). Methods: PubMed, Scopus, The Cumulative Index to Nursing and Allied Health Literature (CINAHL) and The Cochrane Library were searched for English-language randomized control trials (RCTs), meta-analyses, systematic reviews and observational studies published through 31st July 2017. Results: Epidemiology and pathogenesis of middle ear diseases in children with cleft palate have been discussed in this review. Methods of Evaluation, CP surgeries, complications and follow up have been detailed for the same. Conclusion: Evaluation of middle-ear disease in children with CP begins at birth by a newborn hearing screen. Tympanometry and otoscopy helps screen for middle-ear disease during follow-up visits. Ventilation tube may be placed when indicated based on the patient's clinical course and presentation. Long-term follow up should be provided to look for the development of cholesteatoma.

**Database:** CINAHL

### **Isolated neonatal bilateral vocal cord paralysis revealing a unilateral medullary defect: a case report.**

**Author(s):** Brotelande, Camille; Leboucq, Nicolas; Akkari, Mohamed; Roujeau, Thomas; Di Maio, Massimo; Milési, Christophe; Mondain, Michel; Raybaud, Charles; Cambonie, Gilles

**Source:** BMC Pediatrics; Nov 2018; vol. 18 (no. 1)

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30413155

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Available at [BMC pediatrics](#) - from Europe PubMed Central - Open Access

Available at [BMC pediatrics](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Congenital bilateral vocal cord paralysis is a rare occurrence. Approximately half the cases are associated with a major comorbidity, usually neurological, neuromuscular or malformative. Case Presentation: In a male newborn, respiratory distress syndrome and stridor were observed immediately following birth. The cause was bilateral vocal cord paralysis in the adducted position. Neuroradiological investigation revealed a unilateral discontinuity between the upper pons and the right medulla oblongata. Hypoplasia of the right posterior hemiarches of C1-C2 and the right exo-occipital bone was observed, as was a small clivus. MR angiography showed the absence of the distal right vertebral artery, with hypoplasia and parietal irregularities of the proximal segments. Respiratory autonomy was not obtained despite endoscopic laser cordotomy, corticosteroid therapy and nasal continuous positive airway pressure. The infant died at the age of 4 weeks after treatment was limited to comfort care. Conclusions: A medullary lesion is an exceptional cause of congenital bilateral vocal cord paralysis. The strictly unilateral neurological and vascular defect and the absence of associated intracranial or extracranial malformation make this clinical case unique and suggest a disruptive mechanism. This case also highlights the help provided by advanced neuroimaging techniques, i.e. fibre tracking using diffusion tensor imaging, in the decision-making process.

**Database:** CINAHL

### **Otologic, audiometric and speech findings in patients undergoing surgery for cleft palate.**

**Author(s):** Garcia-Vaquero, Cristina; Mir, Cristina; Graterol, Domingo; Ortiz, Nuria; Rochera-Villach, Maria Isabel; LLeonart, Matilde E.; Lorente, Juan

**Source:** BMC Pediatrics; Nov 2018; vol. 18 (no. 1)

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30409226

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Available at [BMC pediatrics](#) - from Europe PubMed Central - Open Access

Available at [BMC pediatrics](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Although considerable progress has been made in the last 30 years in the treatment of cleft palate (CP), a multidisciplinary approach combining examinations by a paediatrician, maxillofacial surgeon, otolaryngologist and speech and language pathologist followed by surgical operation is still required. In this work, we performed an observational cross-sectional study to determine whether the CP grade or number of ventilation tubes received was associated with tympanic membrane abnormalities, hearing loss or speech outcomes. Methods: Otologic, audiometric, tympanometric and speech evaluations were performed in a cohort of 121 patients (children > 6 years) who underwent an operation for CP at the Vall d'Hebron Hospital, Barcelona from 2000 to 2014. Results: The most and least frequent CP types evaluated according to the Veau grade were type III (55.37%) and I (8.26%), respectively. A normal appearance of the membrane was observed in 58% individuals, of whom 55% never underwent ventilation ear tube insertion. No statistically significant associations were identified between the CP type and number of surgeries for insertion of tubes ( $p = 0.820$ ). The degree of hearing loss ( $p = 0.616$ ), maximum impedance ( $p = 0.800$ ) and tympanic membrane abnormalities indicative of chronic otitis media (COM) ( $p = 0.505$ ) among examined patients revealed no statistically significant association with the grade of CP. However, an association was identified between hypernasality and the grade of CP ( $p = 0.053$ ), COM ( $p = 0.000$ ), hearing loss ( $p = 0.000$ ) and number of inserted ventilation tubes. Conclusion:

Although the placement of tympanic ventilation tubes has been accompanied by an increased rate of COM, it is still important to assess whether this is a result of the number of ventilation tubes inserted or it is intrinsic to the natural history of middle ear inflammatory disease of such patients. Our results do not support improvements in speech, hearing, or tympanic membrane abnormalities with more aggressive management of COM with tympanostomy tubes.

**Database:** CINAHL

### **Upper Airway Stimulation in Patients Who Have Undergone Unsuccessful Prior Palate Surgery: An Initial Evaluation.**

**Author(s):** Huntley, Colin; Vasconcellos, Adam; Doghramji, Karl; Hofauer, Benedikt; Heiser, Clemens; Boon, Maurits

**Source:** Otolaryngology-Head & Neck Surgery; Nov 2018; vol. 159 (no. 5); p. 938-940

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30081738

**Abstract:**Upper airway stimulation therapy (UAS) is a new option for treatment of obstructive sleep apnea (OSA) in patients unable to tolerate continuous positive airway pressure (CPAP). We set out to evaluate the effectiveness of UAS in patients who have undergone prior palate surgery. We designed a retrospective review and evaluated patients undergoing UAS at 2 academic centers. We recorded demographic and pre- and postoperative polysomnogram (PSG) data. We compared the cohort of patients who had undergone prior palate surgery, "prior surgery," to the cohort who had not, "no prior surgery." A total of 164 patients were included in the study: 23 in the prior surgery and 141 in the no prior surgery groups. The mean age was significantly higher in the no prior surgery group (  $P = .020$ ). There were no other significant differences when comparing demographic, quality of life, or PSG variables between cohorts. UAS therapy is an option to treat OSA in patients having undergone unsuccessful prior palate surgery.

**Database:** CINAHL

### **Speech evaluation in children with missing anterior teeth and after prosthetic rehabilitation with fixed functional space maintainer.**

**Author(s):** Kalia, Garima; Tandon, Sandeep; Bhupali, Nameksh; Rathore, Ambika; Mathur, Rinku; Rathore, Khushboo; Bhupali, Nameksh Raj

**Source:** Journal of the Indian Society of Pedodontics & Preventive Dentistry; Oct 2018; vol. 36 (no. 4); p. 391-395

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30324931

Available at [Journal of the Indian Society of Pedodontics and Preventive Dentistry](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**Introduction: Speech and language development in children is a dynamic process. Development of vocal sound into meaningful speech was one of the major discoveries which have made the human beings to reach the pinnacle of the animal kingdom. The ability to speak is determined by the flow of air into the mouth which affects pronunciation of various words and phrases. Aim: This study aimed to evaluate speech changes before and after prosthetic rehabilitation with fixed functional space maintainer in children with missing maxillary anterior teeth. Materials

and Methods: The study sample comprised of 25 children in the age range of 3-6 years having at least two maxillary anterior teeth indicated for extraction or had already got extracted. Speech therapist evaluated articulation of [v], [ph], [n], [d], [dh], [th], [t], [s.],[s], and [l] speech sounds of patients preoperatively (T0), postoperatively after the appliance insertion (T1), and postoperatively after 7 days (T2) using Weiss Comprehensive Articulation Test. The data obtained were analyzed using Chi-square and Mcnemar's test. Results: There was statistically significant ( $P < 0.05$ ) correction in [v], [ph], [d], [dh], [th], [t], [s.], and [s] speech sounds immediately after prosthetic rehabilitation (T1). While, the assessment of speech sounds after 7 days of appliance insertion (T2) showed statistically nonsignificant differences. Conclusions: The results suggested that treatment of a patient with missing anterior teeth should not be restricted to esthetic and functional oral rehabilitation, but also comprehend with the speech, as premature loss of the primary maxillary incisor appears to have long-term effect on the speech development.

**Database:** CINAHL

### **Soft palate reconstruction after radionecrosis: Combined anterolateral thigh adipofascial and nasoseptal flaps.**

**Author(s):** Zenga, Joseph; Sharon, Jeffrey D.; Gross, Jennifer; Gantz, Jay; Pipkorn, Patrik

**Source:** Auris Nasus Larynx; Aug 2018; vol. 45 (no. 4); p. 875-879

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29146179

**Abstract:** Although radiation-based treatment for nasopharyngeal cancer may achieve excellent long term oncologic results, late effects of therapy may lead to soft tissue radionecrosis and velopharyngeal insufficiency (VPI). Repair of these oro- and nasopharyngeal defects presents a complex reconstructive challenge. We present a case of a long-term survivor treated with chemoradiotherapy for nasopharyngeal cancer who developed progressive dysphagia, velopharyngeal insufficiency, and radionecrosis of the nasopharynx and soft palate, leading to tracheostomy and gastrostomy tube dependence. A staged reconstruction was performed, initially with a tubed nasoseptal flap for a creation of a mucosal-lined nasopharyngeal port. An adipofascial anterolateral thigh free flap was subsequently performed for soft palate reconstruction. Within 2 months, the oropharyngeal reconstruction had remucosalized and she was decannulated, taking an oral diet. Her speech was intelligible and she had good nasal breathing without symptoms of velopharyngeal insufficiency.

**Database:** CINAHL

### **Effects of laser therapy on patients who underwent rapid maxillary expansion; a systematic review.**

**Author(s):** Davoudi, Amin; Amrolahi, Maryam; Khaki, Hossein

**Source:** Lasers in Medical Science; Aug 2018; vol. 33 (no. 6); p. 1387-1395

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29948453

**Abstract:** Rapid maxillary expansion (RME) is one of the common treatments of transverse maxillary deficiency, and low-level laser therapy (LLLT) is one of the recommended solutions to enhance biological wound or bone healing. This review article aims to answer the following question: "What

are the effects of LLLT, on patients who underwent surgical or non-surgical RME, in improving clinical success, wound healing, and bone regeneration?" A search in PubMed, Scopus, Web of Science, and ProQuest databases was performed, with a focus on the appropriate key words. Related articles, up to May 2017, were screened, and the full text of the randomized controlled trials (RCT) were comprehensively read and subjected to quality assessments. A total of 1804 articles were included after the initial search. Four RCTs were eligible in randomization and methodology. The applied wavelength varied from 660 to 830 nm with an output range of 40-100 mW. Also, the highest exposed energy was 420 J/cm<sup>2</sup> and the lowest was 100 J/cm<sup>2</sup>. The exposure time differed from 20 to 84 s in each defined point in the palate. Based on the RCTs available, LLLT is better to be used at initial phase of RME, because it has some benefits in increasing the rate of bone remodeling.

**Database:** CINAHL

## PHONOLOGY

### **Abnormal processing of prosodic boundary in adults who stutter: An ERP study.**

**Author(s):** Liu, Meng; Xing, Yushan; Zhao, Liming; Deng, Nali; Li, Weijun

**Source:** Brain & Cognition; Dec 2018; vol. 128 ; p. 17-27

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30423511

**Abstract:**Characterized by involuntary disruptions in fluency speech, adults who stutter (AWS) are different from normally fluent speakers (NFS) in speech-language processing indices of phonological, semantic, and syntactic information coding. However, the neural base of the prosodic information (i.e. prosodic boundary) processing in AWS is still elusive at this point. To investigate this question, Chinese temporarily ambiguous phrases (narrative-object/modifier-noun construction) were presented in pairs to AWS and NFS in both lexical judgment and structural judgment task by using structural priming paradigm. Results showed that both AWS and NFS produced prosodic priming in the two tasks, however, AWS were more sensitive to the priming than NFS in the midline. Besides, unlike the greater right hemisphere involvement of priming effect for NFS, AWS exhibited a left hemisphere asymmetry in the lateral areas. In addition, structural judgment task elicited stronger prosodic priming effect than lexical judgment task for both groups. These results indicate that the mode of prosodic priming for AWS is different from NFS, and the priming effect is influenced by the experimental task that participants completed.

**Database:** CINAHL

### **Language processing fluency and verbal working memory in prelingually deaf long-term cochlear implant users: A pilot study.**

**Author(s):** Kronenberger, William G.; Henning, Shirley C.; Ditmars, Allison M.; Pisoni, David B.

**Source:** Cochlear Implants International: An Interdisciplinary Journal; Nov 2018; vol. 19 (no. 6); p. 312-323

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29976119

**Abstract:**Objective: Verbal working memory (WM) is more strongly correlated with spoken language skills in prelingually deaf, early-implanted cochlear implant (CI) users than in normal-hearing (NH)

peers, suggesting that CI users access WM in order to support and compensate for their slower, more effortful spoken language processing. This pilot study tested the feasibility and validity of a dual-task method for establishing the causal role of WM in basic language processing (lexical access speed) in samples of 9 CI users (ages 8-26 years) and 9 NH peers. Methods: Participants completed tests of lexical access speed (rapid automatized picture naming test and lexical decision test) under two administration conditions: a standard condition and a dual-task WM condition requiring participants to hold numerals in WM during completion of the lexical access speed tests. Results: CI users showed more dual-task interference (decline in speed during the WM condition compared to the standard condition) than NH peers, indicating that their lexical access speed was more dependent on engagement of WM resources. Furthermore, dual-task interference scores were significantly correlated with several measures of speed-based executive functioning (EF), consistent with the hypothesis that the dual-task method reflects the involvement of EF in language processing. Conclusion: These pilot study results support the feasibility and validity of the dual-task WM method for investigating the influence of WM in the basic language processing of CI users. Preliminary findings indicate that CI users are more dependent on the use of WM as a compensatory strategy during slow-effortful basic language processing than NH peers.

**Database:** CINAHL

### **Speech treatment in Parkinson's disease: Randomized controlled trial (RCT).**

**Author(s):** Ramig, Lorraine; Halpern, Angela; Spielman, Jennifer; Fox, Cynthia; Freeman, Katherine

**Source:** Movement Disorders; Nov 2018; vol. 33 (no. 11); p. 1777-1791

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30264896

Available at [Movement disorders : official journal of the Movement Disorder Society](#) - from Wiley

**Abstract:**Background: As many as 89% of people with Parkinson's disease (PD) develop speech disorders.Objectives: This randomized controlled trial evaluated two speech treatments for PD matched in intensive dosage and high-effort mode of delivery, differing in subsystem target: voice (respiratory-laryngeal) versus articulation (orofacial-articulatory).Methods: PD participants were randomized to 1-month LSVT LOUD (voice), LSVT ARTIC (articulation), or UNTXPD (untreated) groups. Speech clinicians specializing in PD delivered treatment. Primary outcome was sound pressure level (SPL) in reading and spontaneous speech, and secondary outcome was participant-reported Modified Communication Effectiveness Index (CETI-M), evaluated at baseline, 1, and 7 months. Healthy controls were matched by age and sex.Results: At baseline, the combined PD group (n = 64) was significantly worse than healthy controls (n = 20) for SPL (P < 0.05) and CETI-M (P = 0.0001). At 1 and 7 months, SPL between-group comparisons showed greater improvements for LSVT LOUD (n = 22) than LSVT ARTIC (n = 20; P < 0.05) and UNTXPD (n = 22; P = 0.05). For CETI-M, between-group comparisons showed greater improvements for LSVT LOUD and LSVT ARTIC than UNTXPD at 1 month (P = 0.02; P = 0.02). At 7 months, CETI-M between-group differences were not significant (P = 0.08). Within-group CETI-M improvements for LSVT LOUD were maintained through 7 months (P = 0.0011).Conclusions: LSVT LOUD showed greater improvements than both LSVT ARTIC and UNTXPD for SPL at 1 and 7 months. For CETI-M, both LSVT LOUD and LSVT ARTIC improved at 1 month relative to UNTXPD. Only LSVT LOUD maintained CETI-M improvements at 7 months. © 2018 The Authors. Movement Disorders published by Wiley Periodicals, Inc. on behalf of International Parkinson and Movement Disorder Society.

**Database:** CINAHL

**Acquired Stuttering in Veterans of the Wars in Iraq and Afghanistan: The Role of Traumatic Brain Injury, Post-Traumatic Stress Disorder, and Medications.**

**Author(s):** Norman, Rocío S.; Jaramillo, Carlos A.; Eapen, Blessen C.; Amuan, Megan E.; Jo Pugh, Mary; Pugh, Mary Jo

**Source:** Military Medicine; Nov 2018; vol. 183 (no. 11/12)

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29912436

Available at [Military medicine](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Introduction: Determine the association between acquired stuttering (AS), traumatic brain injury (TBI), and post-traumatic stress disorder (PTSD) in a cohort of 309,675 U.S. Iraq and Afghanistan veterans. The secondary aim was to determine the association between AS and medication patterns for veterans in the sample. Materials and Methods: Retrospective study using data from the Veterans Health Administration National Repository for veterans deployed in support of combat operations in Iraq and Afghanistan and who received Veterans Health Administration care in 2010 and 2011. We identified stuttering using ICD-9 codes to establish the association between AS, TBI, and PTSD, controlling for demographic characteristics and other comorbidities. Multivariable logistic regression was used to determine the association between comorbid conditions and potentially problematic medications associated with stuttering. Results: Two hundred thirty-five veterans (0.08%) were diagnosed with AS in the cohort. There was the greater likelihood of an AS diagnosis for veterans with concomitant TBI and PTSD when compared with veterans without these diagnoses. Over 66% of those with stuttering were prescribed at least one medication that affected speech fluency (antidepressants, anxiolytics, and antiepileptic drugs) compared with 35% of those without AS. Conclusion: Veterans with a comorbid diagnosis of TBI and PTSD were more likely to be diagnosed with AS AOR: 9.77 (95% CI = 6.93-13.78,  $p < 0.05$ ) and more likely to have been prescribed medications known to affect speech production OR: 3.68 (95% CI = 2.81-4.82,  $p < 0.05$ ). Clinicians treating veterans with these complex comorbid conditions should consider the impact of medications on speech fluency.

**Database:** CINAHL

**Development problems were common five years after positive screening for language disorders and, or, autism at 2.5 years of age.**

**Author(s):** Miniscalco, Carmela; Fernell, Elisabeth; Thompson, Lucy; Sandberg, Eva; Kadesjö, Björn; Gillberg, Christopher

**Source:** Acta Paediatrica; Oct 2018; vol. 107 (no. 10); p. 1739-1749

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29637606

Available at [Acta Paediatrica](#) - from Wiley

**Abstract:**Aim: This study identified whether children who had screened positive for either developmental language disorder (DLD) or autism spectrum disorder (ASD) at the age of 2.5 years had neurodevelopmental assessments five years later. Methods: Our study cohort were 288 children born from 1 July 2008 to 20 June 2009 who screened positive for DLD and, or, ASD at 2.5 years. Of these, 237 children were referred to, and assessed, at the Paediatric Speech and Language Pathology clinic ( $n = 176$ ) or the Child Neuropsychiatry Clinic ( $n = 61$ ) at the Queen Silvia Children's Hospital, Gothenburg, Sweden. Clinical registers covering all relevant outpatient clinics were reviewed five

years later with regard to established diagnoses. Results: When the 237 were followed up five years later, 96 (40%) had established neurodevelopmental disorders or problems, often beyond DLD and ASD. Co-existing problems were common in this cohort and multidisciplinary assessments were indicated. The other 60% did not appear in subsequent clinic records. It is likely that this 40% was a minimum rate and that more children will be referred for developmental problems later. Conclusion: Five years after they had been screened positive for DLD and, or autism at 2.5 years, 40% of our cohort had remaining or other developmental problems.

**Database:** CINAHL

### **A Role for Acoustic Stimulation in Advanced Otosclerosis: Direct Acoustic Cochlear Implant versus Cochlear Implant.**

**Author(s):** Desloovere, Christian; Verhaert, Nicolas; Borgers, Charlotte; De Voecht, Katleen; Boon, Ellen; De Voecht, Katleen

**Source:** Audiology & Neuro-Otology; Oct 2018; vol. 23 (no. 2); p. 89-97

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30130747

**Abstract:**Recent findings support the efficacy of the direct acoustic cochlear implant (DACI) in patients with advanced otosclerosis whose rehabilitation is very challenging. Standard treatment consists of stapes surgery combined with hearing aids or a cochlear implant (CI). CI surgery, however, is often challenging depending on the grade of otosclerosis. This study aims to compare speech perception scores in quiet and noise of 6 DACI and 12 CI patients with advanced otosclerosis at 3 and 12 months after fitting. Preoperative computed tomographic scans of all patients were scored by experts using an existing otosclerosis grading system (stages 1-3). Speech perception in quiet was significantly better for DACI compared to CI users at 3 months after fitting. At 12 months, no difference was found between DACI and CI patients. Speech perception scores in noise were significantly better in the DACI group. In summary, a DACI system seems to provide an effective treatment option as the acoustic component can be preserved in patients with advanced otosclerosis.

**Database:** CINAHL

### **Investigating the effect of STN-DBS stimulation and different frequency settings on the acoustic-articulatory features of vowels.**

**Author(s):** Yilmaz, Atilla; Sarac, Elif Tuğba; Aydinli, Fatma Esen; Yildizgoren, Mustafa Turgut; Okuyucu, Emine Esra; Serarslan, Yurdal

**Source:** Neurological Sciences; Oct 2018; vol. 39 (no. 10); p. 1683-1689

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29938340

**Abstract:**Introduction: Parkinson's disease (PD) is the second most frequent progressive neuro-degenerative disorder. In addition to motor symptoms, nonmotor symptoms and voice and speech disorders can also develop in 90% of PD patients. The aim of our study was to investigate the effects of DBS and different DBS frequencies on speech acoustics of vowels in PD patients. Methods: The study included 16 patients who underwent STN-DBS surgery due to PD. The voice recordings for the vowels including [a], [e], [i], and [o] were performed at frequencies including 230, 130, 90, and 60 Hz and off-stimulation. The voice recordings were gathered and evaluated by the Praat software, and

the effects on the first (F1), second (F2), and third formant (F3) frequencies were analyzed. Results: A significant difference was found for the F1 value of the vowel [a] at 130 Hz compared to off-stimulation. However, no significant difference was found between the three formant frequencies with regard to the stimulation frequencies and off-stimulation. In addition, though not statistically significant, stimulation at 60 and 230 Hz led to several differences in the formant frequencies of other three vowels. Conclusion: Our results indicated that STN-DBS stimulation at 130 Hz had a significant positive effect on articulation of [a] compared to off-stimulation. Although there is not any statistical significant stimulation at 60 and 230 Hz may also have an effect on the articulation of [e], [i], and [o] but this effect needs to be investigated in future studies with higher numbers of participants.

**Database:** CINAHL

### **Cortical-subcortical production of formulaic language: A review of linguistic, brain disorder, and functional imaging studies leading to a production model.**

**Author(s):** Van Lancker Sidtis, Diana; Sidtis, John J.

**Source:** Brain & Cognition; Oct 2018; vol. 126 ; p. 53-64

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30176549

**Abstract:**Formulaic language forms about one-fourth of everyday talk. Formulaic (fixed expressions) and novel (grammatical language) differ in important characteristics. The features of idioms, slang, expletives, proverbs, aphorisms, conversational speech formulas, and other fixed expressions include ranges of length, flexible cohesion, memory storage, nonliteral and situation meaning, and affective content. Neurolinguistic observations in persons with focal brain damage or progressive neurological disease suggest that producing formulaic expressions can be achieved by interactions between the right hemisphere and subcortical structures. The known functional characteristics of these structures form a compatible substrate for production of formulaic expressions. Functional imaging using a performance-based analysis supported a right hemisphere involvement in producing conversational speech formulas, while indicating that the pause fillers, uh and um, engage the left hemisphere and function like lexical items. Together these findings support a dual-process model of language, whereby formulaic and grammatical language are modulated by different cerebral structures.

**Database:** CINAHL

### **Neutralization and homophony avoidance in phonological learning.**

**Author(s):** Yin, Sora Heng; White, James

**Source:** Cognition; Oct 2018; vol. 179 ; p. 89-101

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29933120

**Abstract:**Previous research has suggested that homophony avoidance plays a role in constraining language change; in particular, phonological contrasts are less likely to be neutralized if doing so would greatly increase the amount of homophony in the language. Most of the research on homophony avoidance has focused on the history of real languages, comparing attested and unattested (hypothetical) phonological changes. In this study, we take a novel approach by focusing on the language learner. Using an artificial language learning paradigm, we show that learners are

less likely to acquire neutralizing phonological rules compared to non-neutralizing rules, but only if the neutralizing rules create homophony between lexical items encountered during learning. The results indicate that learners are biased against phonological patterns that create homophony, which could have an influence on language change. The results also suggest that lexical learning and phonological learning are highly integrated.

**Database:** CINAHL

**Anomalous morphology in left hemisphere motor and premotor cortex of children who stutter.**

**Author(s):** Garnett, Emily O; Chow, Ho Ming; Nieto-Castañón, Alfonso; Tourville, Jason A; Guenther, Frank H; Chang, Soo-Eun

**Source:** Brain: A Journal of Neurology; Sep 2018; vol. 141 (no. 9); p. 2670-2684

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30084910

**Abstract:** Stuttering is a neurodevelopmental disorder that affects the smooth flow of speech production. Stuttering onset occurs during a dynamic period of development when children first start learning to formulate sentences. Although most children grow out of stuttering naturally, ~1% of all children develop persistent stuttering that can lead to significant psychosocial consequences throughout one's life. To date, few studies have examined neural bases of stuttering in children who stutter, and even fewer have examined the basis for natural recovery versus persistence of stuttering. Here we report the first study to conduct surface-based analysis of the brain morphometric measures in children who stutter. We used FreeSurfer to extract cortical size and shape measures from structural MRI scans collected from the initial year of a longitudinal study involving 70 children (36 stuttering, 34 controls) in the 3-10-year range. The stuttering group was further divided into two groups: persistent and recovered, based on their later longitudinal visits that allowed determination of their eventual clinical outcome. A region of interest analysis that focused on the left hemisphere speech network and a whole-brain exploratory analysis were conducted to examine group differences and group × age interaction effects. We found that the persistent group could be differentiated from the control and recovered groups by reduced cortical thickness in left motor and lateral premotor cortical regions. The recovered group showed an age-related decrease in local gyrification in the left medial premotor cortex (supplementary motor area and and pre-supplementary motor area). These results provide strong evidence of a primary deficit in the left hemisphere speech network, specifically involving lateral premotor cortex and primary motor cortex, in persistent developmental stuttering. Results further point to a possible compensatory mechanism involving left medial premotor cortex in those who recover from childhood stuttering.

**Database:** CINAHL

**Prosodic and phonetic subtypes of primary progressive apraxia of speech.**

**Author(s):** Utianski, Rene L.; Duffy, Joseph R.; Clark, Heather M.; Strand, Edythe A.; Botha, Hugo; Schwarz, Christopher G.; Machulda, Mary M.; Senjem, Matthew L.; Spychalla, Anthony J.; Jr. Jack, Clifford R.; Petersen, Ronald C.; Lowe, Val J.; Whitwell, Jennifer L.; Josephs, Keith A.; Jack, Clifford R Jr

**Source:** Brain & Language; Sep 2018; vol. 184 ; p. 54-65

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29980072

**Abstract:**Primary progressive apraxia of speech (PPAOS) is a clinical syndrome in which apraxia of speech is the initial indication of neurodegenerative disease. Prior studies of PPAOS have identified hypometabolism, grey matter atrophy, and white matter tract degeneration in the frontal gyri, precentral cortex, and supplementary motor area (SMA). Recent clinical observations suggest two distinct subtypes of PPAOS may exist. Phonetic PPAOS is characterized predominantly by distorted sound substitutions. Prosodic PPAOS is characterized predominantly by slow, segmented speech. Demographic, clinical, and neuroimaging data (MRI, DTI, and FDG-PET) were analyzed to validate these subtypes and explore anatomic correlates. The Phonetic subtype demonstrated bilateral involvement of the SMA, precentral gyrus, and cerebellar crus. The Prosodic subtype demonstrated more focal involvement in the SMA and right superior cerebellar peduncle. The findings provide converging evidence that differences in the reliably determined predominant clinical characteristics of AOS are associated with distinct imaging patterns, independent of severity.

**Database:** CINAHL

### **Young infants' discrimination of subtle phonetic contrasts.**

**Author(s):** Sundara, Megha; Ngon, Céline; Skoruppa, Katrin; Feldman, Naomi H.; Onario, Glenda Molina; Morgan, James L.; Peperkamp, Sharon

**Source:** Cognition; Sep 2018; vol. 178 ; p. 57-66

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29777983

**Abstract:**It is generally accepted that infants initially discriminate native and non-native contrasts and that perceptual reorganization within the first year of life results in decreased discrimination of non-native contrasts, and improved discrimination of native contrasts. However, recent findings from Narayan, Werker, and Beddor (2010) surprisingly suggested that some acoustically subtle native-language contrasts might not be discriminated until the end of the first year of life. We first provide countervailing evidence that young English-learning infants can discriminate the Filipino contrast tested by Narayan et al. when tested in a more sensitive paradigm. Next, we show that young infants learning either English or French can also discriminate comparably subtle non-native contrasts from Tamil. These findings show that Narayan et al.'s null findings were due to methodological choices and indicate that young infants are sensitive to even subtle acoustic contrasts that cue phonetic distinctions cross-linguistically. Based on experimental results and acoustic analyses, we argue that instead of specific acoustic metrics, infant discrimination results themselves are the most informative about the salience of phonetic distinctions.

**Database:** CINAHL

### **The prosodic domain of phonological encoding: Evidence from speech errors.**

**Author(s):** Beirne, Mary-Beth; Croot, Karen

**Source:** Cognition; Aug 2018; vol. 177 ; p. 1-7

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29614350

**Abstract:**Phonological encoding of segments is thought to occur within a prosodically-defined frame, but it is not clear which of the constituent/s within the prosodic hierarchy (syllables, phonological words, intonational phrases and utterances) serve/s as the domain of phonological encoding. This

experiment investigated whether segmental speech errors elicited in tongue-twisters were influenced by position within prosodic constituents above the level of the phonological word. Forty-four participants produced six repetitions each of 40 two-intonational phrase tongue-twisters with error-prone word-initial "target" segments in phrase-initial and phrase-final words. If the domain of phonological encoding is the intonational phrase, we hypothesised that segments within a current intonational phrase would interact in more errors than would segments across intonational phrase boundaries. Participants made more anticipatory than perseveratory errors on target segments in phrase-initial words as predicted. They also made more perseveratory than anticipatory errors on targets in phrase-final words, but only in utterance-final phrases. These results suggest that the intonational phrase is one domain of phonological encoding, and that segments for upcoming phrases are activated while current phrases are being articulated.

**Database:** CINAHL

### **Hearing and orally mimicking different acoustic-semantic categories of natural sound engage distinct left hemisphere cortical regions.**

**Author(s):** Lewis, James W.; Silberman, Magenta J.; Donai, Jeremy J.; Frum, Chris A.; Brefczynski-Lewis, Julie A.

**Source:** Brain & Language; Aug 2018; vol. 183 ; p. 64-78

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29966815

**Abstract:** Oral mimicry is thought to represent an essential process for the neurodevelopment of spoken language systems in infants, the evolution of language in hominins, and a process that could possibly aid recovery in stroke patients. Using functional magnetic resonance imaging (fMRI), we previously reported a divergence of auditory cortical pathways mediating perception of specific categories of natural sounds. However, it remained unclear if or how this fundamental sensory organization by the brain might relate to motor output, such as sound mimicry. Here, using fMRI, we revealed a dissociation of activated brain regions preferential for hearing with the intent to imitate and the oral mimicry of animal action sounds versus animal vocalizations as distinct acoustic-semantic categories. This functional dissociation may reflect components of a rudimentary cortical architecture that links systems for processing acoustic-semantic universals of natural sound with motor-related systems mediating oral mimicry at a category level. The observation of different brain regions involved in different aspects of oral mimicry may inform targeted therapies for rehabilitation of functional abilities after stroke.

**Database:** CINAHL

### **A Brain Marker for Developmental Speech Disorders.**

**Author(s):** Morgan, Angela T.; Su, Merina; Reilly, Sheena; Conti-Ramsden, Gina; Connelly, Alan; Liégeois, Frédérique J.

**Source:** Journal of Pediatrics; Jul 2018; vol. 198 ; p. 234-234

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29705112

**Abstract:** Objective: To characterize the organization of speech- and language-related white matter tracts in children with developmental speech and/or language disorders. Study Design: We collected magnetic resonance diffusion-weighted imaging data from 41 children, ages 9-11 years, with

developmental speech and/or language disorders, and compared them with 45 typically developing controls with the same age range. We used probabilistic tractography of diffusion-weighted imaging to map language (3 segments of arcuate fasciculus, extreme capsule system) and speech motor (corticobulbar) tracts bilaterally. The corticospinal and callosal tracts were used as control regions. We compared the mean fractional anisotropy and diffusivity values between atypical and control groups, covarying for nonverbal IQ. We then examined differences between atypical subgroups: developmental speech disorder (DSD), developmental language disorder, and co-occurring developmental speech and language disorder. Results: Fractional anisotropy in the left corticobulbar tract was lower in the DSD than in the control group. Radial and mean diffusivity were higher in the DSD than the developmental language disorder, co-occurring developmental speech and language disorder, or control groups. There were no group differences for any metrics in the language or control tracts. Conclusions: Atypical development of the left corticobulbar tract may be a neural marker for DSD. This finding is in line with reports of speech disorder after left corticobulbar damage in children and adults with brain injury. By contrast, we found no association between diffusion metrics in language-related tracts in developmental language disorder, and changes for language disorders are likely more complex.

**Database:** CINAHL

### **Efficacy of Phonosurgery, Logopedic Voice Treatment and Vocal Pedagogy in Common Voice Problems of Singers.**

**Author(s):** Ropero Rendón, Maria del Mar; Ermakova, Tatiana; Freymann, Marie-Louise; Ruschin, Alina; Nawka, Tadeus; Caffier, Philipp P.

**Source:** Advances in Therapy; Jul 2018; vol. 35 (no. 7); p. 1069-1086

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29949040

**Abstract:** Introduction: Functional and organic impairments of the singing voice are common career-threatening problems of singers presenting in phoniatic and laryngological departments. The objective was to evaluate the efficacy of phonosurgery, logopedic voice treatment and vocal pedagogy in common organic and functional voice problems of singers, including investigation of the recently introduced parameter vocal extent measure (VEM). Methods: In a prospective clinical study, the analysis of treatment outcome in 76 singers [57 female, 19 male;  $38 \pm 11$  years (mean  $\pm$  SD)] was based on pre- and post-therapeutic voice function diagnostics and videolaryngostroboscopy. Examination instruments included auditory-perceptual voice assessment, voice range profile (VRP), the VEM calculated from area and shape of the VRP, acoustic-aerodynamic analysis, and patients' self-assessment (e.g., Singing Voice Handicap Index). Results: While 28% of all singers (21/76) presented with functional dysphonia, 72% (55/76) were diagnosed with organic vocal fold changes, of which marginal edema ( $n = 25$ ), nodules ( $n = 9$ ), and polyps ( $n = 8$ ) were the most common pathologic changes. Of the 76 singers, 57% (43) received phonosurgery, 43% (33) had conservative pedagogic (14) and logopedic (19) treatment. Three months post-therapeutically, most parameters had significantly improved. The dysphonia severity index (DSI) increased on average from  $6.1 \pm 2.0$  to  $7.4 \pm 1.8$  ( $p < 0.001$ ), and the VEM from  $113 \pm 20$  to  $124 \pm 14$  ( $p < 0.001$ ). Both parameters correlated significantly with each other ( $r_s = 0.41$ ). Phonosurgery had the largest impact on the improvement of vocal function. Conservative therapies provided smaller quantitative enhancements but also qualitative vocal restoration with recovered artistic capabilities. Conclusions: Depending on individual medical indication, phonosurgery, logopedic treatment and voice teaching are all effective, objectively and subjectively satisfactory therapies to improve the impaired singing voice. The use of VEM in singers with functional and organic dysphonia objectifies and quantifies their

vocal capacity as documented in the VRP. Complementing the established DSI, VEM introduction into practical objective voice diagnostics is appropriate and desirable especially for the treatment of singers.

**Database:** CINAHL

**Evaluating satisfaction of patients with stutter regarding the tele-speech therapy method and infrastructure.**

**Author(s):** Eslami Jahromi, Maryam; Ahmadian, Leila

**Source:** International Journal of Medical Informatics; Jul 2018; vol. 115 ; p. 128-133

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29779715

**Abstract:**Objective: Investigating the required infrastructure for the implementation of telemedicine and the satisfaction of target groups improves the acceptance of this technology and facilitates the delivery of healthcare services. The aim of this study was to assess the satisfaction of patients with stutter concerning the therapeutic method and the infrastructure used to receive tele-speech therapy services. Methods: This descriptive-analytical study was conducted on all patients with stutter aged between 14 and 39 years at Jahrom Social Welfare Bureau (n = 30). The patients underwent speech therapy sessions through video conferencing with Skype. Data were collected by a researcher-made questionnaire. Its content validity was confirmed by three medical informatics specialists. Data were analyzed using SPSS version 19. Results: The mean and standard deviation of patient satisfaction scores concerning the infrastructure and the tele-speech therapy method were  $3.15 \pm 0.52$  and  $3.49 \pm 0.52$ , respectively. No significant relationship was found between the patients satisfaction and their gender, education level and age ( $p > 0.05$ ). The results of this study showed that the number of speech therapy sessions did not affect the overall satisfaction of the patients ( $p > 0.05$ ), but the number of therapeutic sessions had a direct relationship with their satisfaction with the infrastructure used for tele-speech therapy ( $p < 0.05$ ). Conclusions: The present study showed that patients were satisfied with tele-speech therapy. According to most patients the low speed of the Internet connection in the country was a major challenge for receiving tele-speech therapy. The results suggest that healthcare planner and policy makers invest on increasing bandwidth to improve the success rate of telemedicine programs.

**Database:** CINAHL

**The aprosody of schizophrenia: Computationally derived acoustic phonetic underpinnings of monotone speech.**

**Author(s):** Compton, Michael T.; Lunden, Anya; Cleary, Sean D.; Pauselli, Luca; Alolayan, Yazeed; Halpern, Brooke; Broussard, Beth; Crisafio, Anthony; Capulong, Leslie; Balducci, Pierfrancesco Maria; Bernardini, Francesco; Covington, Michael A.

**Source:** Schizophrenia Research; Jul 2018; vol. 197 ; p. 392-399

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29449060

**Abstract:**Objective: Acoustic phonetic methods are useful in examining some symptoms of schizophrenia; we used such methods to understand the underpinnings of aprosody. We hypothesized that, compared to controls and patients without clinically rated aprosody, patients

with aprosody would exhibit reduced variability in: pitch (F0), jaw/mouth opening and tongue height (formant F1), tongue front/back position and/or lip rounding (formant F2), and intensity/loudness. Methods: Audiorecorded speech was obtained from 98 patients (including 25 with clinically rated aprosody and 29 without) and 102 unaffected controls using five tasks: one describing a drawing, two based on spontaneous speech elicited through a question (Tasks 2 and 3), and two based on reading prose excerpts (Tasks 4 and 5). We compared groups on variation in pitch (F0), formant F1 and F2, and intensity/loudness. Results: Regarding pitch variation, patients with aprosody differed significantly from controls in Task 5 in both unadjusted tests and those adjusted for sociodemographics. For the standard deviation (SD) of F1, no significant differences were found in adjusted tests. Regarding SD of F2, patients with aprosody had lower values than controls in Task 3, 4, and 5. For variation in intensity/loudness, patients with aprosody had lower values than patients without aprosody and controls across the five tasks. Conclusions: Findings could represent a step toward developing new methods for measuring and tracking the severity of this specific negative symptom using acoustic phonetic parameters; such work is relevant to other psychiatric and neurological disorders.

**Database:** CINAHL

### **The basic reproductive ratio as a link between acquisition and change in phonotactics.**

**Author(s):** Baumann, Andreas; Ritt, Nikolaus

**Source:** Cognition; Jul 2018; vol. 176 ; p. 174-183

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29558722

**Abstract:** Language acquisition and change are thought to be causally connected. We demonstrate a method for quantifying the strength of this connection in terms of the 'basic reproductive ratio' of linguistic constituents. It represents a standardized measure of reproductive success, which can be derived both from diachronic and from acquisition data. By analyzing phonotactic English data, we show that the results of both types of derivation correlate, so that phonotactic acquisition indeed predicts phonotactic change, and vice versa. After drawing that general conclusion, we discuss the role of utterance frequency and show that the latter exhibits destabilizing effects only on late acquired items, which belong to phonotactic periphery. We conclude that - at least in the evolution of English phonotactics - acquisition serves conservation, while innovation is more likely to occur in adult speech and affects items that are less entrenched but comparably frequent.

**Database:** CINAHL

### **Evaluation of phonological processing skills of young children with neurofibromatosis type 1.**

**Author(s):** Thompson, Heather L.

**Source:** Developmental Medicine & Child Neurology; Jul 2018; vol. 60 (no. 7); p. 642-642

**Publication Date:** Jul 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29691847

Available at [Developmental Medicine & Child Neurology](#) - from Wiley

**Abstract:** The article discusses findings of a study on phonological processing skills of young children with neurofibromatosis type 1. It states that specific learning disability (SLD) is characterized by deficits in one or several processes needed for understanding, and mentions that preschool children

with SLD can initially present with problems in word pronunciation. It notes that children with the neurocutaneous genetic disorder neurofibromatosis type 1 (NF1) may exhibit delays in speech.

**Database:** CINAHL

## SWALLOWING

### **Inter-rater Agreement of Clinicians' Treatment Recommendations Based on Modified Barium Swallow Study Reports.**

**Author(s):** Slovarp, Laurie; Danielson, Jennifer; Liss, Julie

**Source:** Dysphagia (0179051X); Dec 2018; vol. 33 (no. 6); p. 818-826

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29882104

**Abstract:**The modified barium swallow study (MBSS) is a commonly used radiographic procedure for diagnosis and treatment of swallowing disorders. Despite attempts by dysphagia specialists to standardize the MBSS, most institutions have not adopted such standardized procedures. High variability of assessment patterns arguably contribute to variability of treatment recommendations made from diagnostic information derived from the MBSS report. An online survey was distributed to speech-language pathologists (SLPs) participating in American Speech Language Hearing Association (ASHA) listservs. Sixty-three SLPs who treat swallowing disorders participated. Participating SLPs reviewed two MBSS reports and chose physiologic treatment targets (e.g., tongue base retraction) based on each report. One report primarily contained symptomatology (e.g., aspiration, pharyngeal residue) with minimal information on impaired physiology (e.g., laryngeal incompetence, reduced hyolaryngeal elevation/excursion). In contrast, the second report contained a clear description of impaired physiology to explain the dysphagia symptoms. Fleiss kappa coefficients were used to analyze inter-rater agreement across the high and low physiology report types. Results revealed significantly higher inter-rater agreement across clinicians when reviewing reports with clear explanation(s) of physiologic impairment relative to reports that primarily focused on symptomatology. Clinicians also reported significantly greater satisfaction and treatment confidence following review of reports with clear description(s) of impaired physiology.

**Database:** CINAHL

### **Prevalence of sarcopenia and its association with activities of daily living and dysphagia in convalescent rehabilitation ward inpatients.**

**Author(s):** Yoshimura, Yoshihiro; Wakabayashi, Hidetaka; Bise, Takahiro; Tanoue, Maiko

**Source:** Clinical Nutrition; Dec 2018; vol. 37 (no. 6); p. 2022-2028

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background The purpose of this study was to investigate the prevalence of sarcopenia following stroke, musculoskeletal disease, or hospital-associated deconditioning in convalescent rehabilitation ward inpatients. The association between the activities of daily living (ADLs), dysphagia, and sarcopenia was also assessed. Methods A cross-sectional study was performed in consecutive patients admitted to convalescent rehabilitation wards. Sarcopenia was defined as a loss of skeletal muscle mass and decreased muscle strength. The primary outcome was the Functional Independence Measure (FIM) score. Body mass index, Mini Nutritional Assessment-Short Form score, Food Intake Level Scale (FILS) score, Charlson Comorbidity Index, pre-morbid

modified Rankin scale, time from onset, reason for admission, bioelectrical impedance analysis for skeletal muscle mass and fat mass, and handgrip strength were also assessed. Univariate and multivariate analyses were used to determine whether ADLs and dysphagia were associated with sarcopenia. Results The study included 637 patients (mean age: 74 years; 271 men and 366 women). Sarcopenia was diagnosed in 343 (53.0%) patients (141 men and 202 women). Sarcopenia was identified in 53.6% (125/233) of stroke patients (59.8%, 50.0%, and 34.6% of patients with brain infarctions, brain hemorrhages, and subarachnoid hemorrhages, respectively). Sarcopenia was found in 51.3% (154/300) of patients with musculoskeletal diseases (59.5%, 53.6%, and 36.5% of patients with hip fractures, vertebral compression fractures, and total knee arthroplasty, respectively). Of patients with hospital-associated deconditioning, 61.5% (64/104) had sarcopenia (95.1% and 39.7% of patients with pneumonia and other acute diseases, respectively). Multivariate analysis showed that FIM motor domain and FIM scores were independently associated with skeletal muscle mass loss and decreased muscle strength. Conclusions The prevalence of sarcopenia in convalescent rehabilitation ward inpatients was 53.0%. ADLs and dysphagia were independently associated with sarcopenia in this study population. Sarcopenia with disabilities should be assessed for all patients in rehabilitation settings.

**Database:** CINAHL

### **Dysphagia and Oral Morbidities in Chemoradiation-Treated Head and Neck Cancer Patients.**

**Author(s):** Ihara, Yoshiaki; Crary, Michael A.; Madhavan, Aarthi; Gregorio, David C.; Im, Ikjae; Ross, Sarah E.; Carnaby, Giselle D.

**Source:** Dysphagia (0179051X); Dec 2018; vol. 33 (no. 6); p. 739-748

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29619560

**Abstract:** This study prospectively evaluated relationships between oral morbidities and swallowing ability in head/neck cancer patients following chemoradiation therapy (CRT) and at 3 months following CRT. Thirty patients with confirmed head/neck cancer undergoing chemoradiation were assessed with a battery of swallowing measures and measures of oral morbidities related to chemoradiation (xerostomia, mucositis, pain, taste/smell, oral moisture). All measures were completed at baseline (within the first week of CRT), at 6 weeks (end of treatment), and at 3 months following chemoradiation. Descriptive and univariate statistics were used to depict change over time in swallowing and each oral morbidity. Correlation analyses evaluated relationships between swallowing function and oral morbidities at each time point. Most measures demonstrated significant negative change at 6 weeks with incomplete recovery at 3 months. At 6 weeks, mucositis ratings, xerostomia, and retronasal smell intensity demonstrated significant inverse relationships with swallowing function. In addition, oral moisture levels demonstrated significant positive relationships with swallowing function. At 3 months, mucositis ratings maintained a significant, inverse relationship with swallow function. Taste and both orthonasal and retronasal smell intensity ratings demonstrated inverse relationships with measures of swallow function. Swallow functions and oral morbidities deteriorate significantly following CRT with incomplete recovery at 3 months post treatment. Furthermore, different patterns of relationships between swallow function measures and oral morbidities were obtained at the 6-week versus the 3-month assessment point suggesting that different mechanisms may contribute to the development versus the maintenance of dysphagia over the trajectory of treatment in these patients.

**Database:** CINAHL

### **Changes in Patient-reported Swallow Function in the Long Term After Chemoradiotherapy for Oropharyngeal Carcinoma.**

**Author(s):** Martin, A.; Murray, L.; Sethugavalar, B.; Buchan, C.; Williams, G.F.; Sen, M.; Prestwich, R.J.D.

**Source:** Clinical Oncology; Dec 2018; vol. 30 (no. 12); p. 756-763

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**Abstract:** Abstract Aims To assess long-term patient-reported swallow function after chemoradiotherapy for oropharyngeal carcinoma and to evaluate the frequency of deterioration/improvement over years. Materials and methods Fifty-nine patients with oropharyngeal carcinoma treated with parotid-sparing intensity-modulated radiotherapy and concurrent chemotherapy between 2010 and 2012 had previously completed the MD Anderson Dysphagia Inventory (MDADI) at a median of 34 months (range 24–59) after treatment. An MDADI was posted to 55 alive and disease-free patients after a 30 month interval; 52/55 replies were received, a median of 64 months (range 52–88) after treatment; 27/52 (52%) had been managed with a prophylactic gastrostomy. A 10 point or greater change in the MDADI scores was defined as clinically significant. Results Overall, in the whole cohort, patient-reported swallow function showed a small absolute improvement in MDADI composite score on the second MDADI questionnaire (>5 years after treatment) compared with the first MDADI (>2 years after treatment); mean 68.0 (standard deviation 19.3) versus 64.0 (standard deviation 16.3),  $P = 0.021$ . Using the composite score, swallow function was stable over time in 29/52 (56%) patients; a clinically significant improvement in swallow function over time was noted in 17/52 (33%) patients; conversely 6/52 (12%) patients experienced a clinically significant deterioration with time. Abnormality of pre-treatment diet and a prophylactic gastrostomy correlated with an inferior MDADI composite score on the later questionnaire ( $P = 0.029$  and  $P = 0.044$ , respectively). Conclusions Long-term dysphagia is prevalent >5 years after treatment. Although long-term swallow function is stable in most patients, it is not static in a minority. On MDADI composite summary scores, 33% of patients experienced an improvement, whereas 12% deteriorated with time. Further investigation is needed to determine underlying mechanisms behind these divergent outcomes. Highlights • Long-term dysphagia is a major morbidity after chemoradiotherapy. • Patient-reported swallow outcomes assessed >2 and >5 years after chemoradiotherapy. • Patient-reported swallow outcomes were stable in most patients. • Divergent outcomes in minority with improvement in 33% and deterioration in 12%.

**Database:** CINAHL

### **Chewing Function in Children with Repaired Esophageal Atresia-Tracheoesophageal Fistula.**

**Author(s):** Arslan, Selen Serel; Demir, Numan; Karaduman, Aynur Ayşe; Tanyel, Feridun Cahit; Soyer, Tutku; Serel Arslan, Selen

**Source:** European Journal of Pediatric Surgery; Dec 2018; vol. 28 (no. 6); p. 534-538

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29212093

**Abstract:** Introduction: Feeding problems are common in children with esophageal atresia and tracheoesophageal fistula (EA-TEF); however, chewing disorders, which may cause inability to intake solid food, have not been evaluated. Therefore, we aimed to evaluate the chewing function in children with repaired EA-TEF. Materials and Methods: Age, sex, the type of atresia, the type of repair, and the time to start oral feeding were recorded. The level of the chewing performance was

scored according to the Karaduman Chewing Performance Scale (KCPS). The International Dysphagia Diet Standardization Initiative (IDDSI) was used to determine the tolerated food texture in children. Results: A group of 30 patients were included, of which 53.3% was male. The percentages of the isolated-EA and that of the EA-distal TEF were 40% and 60%, respectively. The median value for the time to start oral feeding was 4.5 weeks (min = 1, max = 72). Eleven (36.7%) children had chewing disorder. The KCPS scores showed level I in six cases, level III in four cases, and level IV in one case. Five children with chewing disorder had IDDSI level 3 and six had level 7, along with the sensation of stuck food. We found no significant difference between the KCPS scores according to the repair type ( $p = 0.07$ ). The median values of the KCPS scores of children with primary repair, delayed repair, and colon interposition were 0 (min = 0, max = 4), 0.5 (min = 0, max = 3), 2 (min = 0, max = 3), respectively. A significant positive correlation was found between the time to start oral feeding and the KCPS scores ( $r = 0.63$ ,  $p = 0.001$ ). Conclusion: Chewing disorders can be observed in children with EA-TEF, and the type of repair and the delay in oral feeding may be related to chewing disorder. Therapeutic maneuvers are needed to improve the chewing function in children with EA-TEF.

**Database:** CINAHL

### **Effects of Fluoxetine on Poststroke Dysphagia: A Clinical Retrospective Study.**

**Author(s):** Huang, Jianting; Liu, Xuanwei; Luo, Xun; Tang, Chunzhi; Xu, Mingzhu; Wood, Lisa; Wang, Yulong; Wang, Qing Mei

**Source:** Journal of Stroke & Cerebrovascular Diseases; Nov 2018; vol. 27 (no. 11); p. 3320-3327

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30174226

**Abstract:** Background: To investigate whether fluoxetine improves poststroke dysphagia and to detect the potential relationship between serum brain-derived neurotrophic factor (BDNF) levels and fluoxetine effects. Methods: In this retrospective study, 159 stroke patients who met our study criteria were included. In total, 110 patients were placed in the control group, and 49 patients were placed in the fluoxetine group. Demographic and clinical characteristics of the patients were collected for the baseline assessment. Functional independence measure scores and American speech-language-hearing association/functional communication measures scores for swallowing were collected to evaluate the patients' swallowing function. Patients' serums were collected at weeks 1 and 3 after admission, and serum BDNF levels were measured by enzyme-linked immunosorbent assay. T test, chi-squared test, and general linear model analysis were performed to determine the differences between the two groups. Results: A significantly higher improvement of swallowing function was observed in the fluoxetine group compared with that of the control group ( $P = .023$ ). In addition, a general linear model analysis showed that the treatment of fluoxetine has a statistically significant effect on swallowing improvement after adjustment of swallowing score on admission, stroke types, and interval between the onset of stroke and admission ( $P = .022$ ,  $R^2 = .46$ , adjusted  $R^2 = .446$ ). There is no significant difference in the change of serum BDNF levels in the two groups ( $P = .269$ ). Conclusions: This study suggests that treatment with fluoxetine in stroke patients with dysphagia may improve swallowing function. A placebo-controlled, randomized clinical trial is warranted to confirm this finding.

**Database:** CINAHL

### **New Swallowing Method to Improve Pharyngeal Passage of a Bolus by Creating Negative Pressure in the Esophagus--Vacuum Swallowing.**

**Author(s):** Kenjiro Kunieda; Saori Kuba; Ichiro Fujishima

**Source:** American Journal of Physical Medicine & Rehabilitation; Sep 2018; vol. 97 (no. 9)

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**Abstract:**Herein, we present a case of a patient with Wallenberg syndrome with severe bulbar dysphagia who discovered a unique swallowing method: creating strong negative pressure in the esophagus to improve pharyngeal passage of a bolus. A 47-yr-old man presented with a subarachnoid hemorrhage secondary to a ruptured aneurysm in the right vertebral artery. After coil embolization, he experienced severe dysphagia due to Wallenberg syndrome and required tube feeding. Eighty-one days after the onset of the stroke, a videofluoroscopic swallowing evaluation revealed that the bolus was rapidly sucked into the esophagus. High-resolution manometry showed weak constriction of the pharynx simultaneous with forced, voluntary constriction of the diaphragm before swallowing; this created negative pressure in the esophagus. The authors named this unique swallowing method "vacuum swallowing." Ultimately, the patient was able to eat an ordinary diet via the use of this technique. Vacuum swallowing is a unique method of improving pharyngeal passage of a bolus by creating strong negative pressure in the esophagus. Additional studies are necessary to determine whether vacuum swallowing can be successfully used for other forms of dysphagia.

**Database:** CINAHL

### **Liquid nitrogen spray cryotherapy for dysphagia palliation in patients with inoperable esophageal cancer.**

**Author(s):** Kachaamy, Toufic; Prakash, Ravi; Kundranda, Madappa; Batish, Raman; Weber, Jeffrey; Hendrickson, Scott; Yoder, Leon; Do, Hannah; Magat, Theresa; Nayar, Rajeev; Gupta, Digant; DaSilva, Trisha; Sangal, Ashish; Kothari, Shivangi; Kaul, Vivek; Vashi, Pankaj

**Source:** Gastrointestinal Endoscopy; Sep 2018; vol. 88 (no. 3); p. 447-455

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**Abstract:**Background and Aims Dysphagia is a debilitating symptom in patients with inoperable esophageal cancer that contributes to poor quality of life and worsening nutritional status. The 2 most commonly used palliative modalities for dysphagia are radiation therapy and esophageal stent placement. However, radiation therapy is limited by adverse events (AEs) and total dose, and stent placement has a high rate of AEs, including reflux, migration, and chest pain. A relatively new modality of liquid nitrogen endoscopic spray cryotherapy has been described as salvage when other options have been exhausted and when patients are no longer receiving systemic therapy. We evaluated the safety and efficacy of cryotherapy as the primary modality for relieving dysphagia in inoperable esophageal cancer including patients receiving systemic cancer therapy. Methods This is a retrospective, multicenter, consecutive case series of 49 inoperable esophageal cancer patients undergoing palliative endoscopic cryotherapy at 4 specialized cancer centers from May 2014 to May 2016. The primary outcomes were change in dysphagia scores between pre- and postcryotherapy and AEs. Dysphagia was measured using a 5-point Likert scale: 0, no dysphagia; 1, dysphagia to solids; 2, dysphagia to semisolids; 3, dysphagia to liquids; 4, dysphagia to saliva. Results Thirty-nine men and 10 women with a mean age of 58 years underwent a total of 120 cryotherapy treatments. The mean dysphagia score improved significantly from 2.4 precryotherapy to 1.7 postcryotherapy (improvement of .7 points;  $P < .001$ ). Minor AEs were seen in 6 of 120 (5.0%) cryotherapy treatments (1 intraprocedural and 5 postprocedural). In addition, 1 patient developed a severe intraprocedural AE of dilation-related perforation, whereas another patient developed a benign stricture requiring dilation. Conclusions This preliminary retrospective study suggests that liquid nitrogen spray cryotherapy may be safe and effective for dysphagia palliation in inoperable esophageal cancer.

Large prospective studies are needed to confirm these findings and identify patient and procedure characteristics associated with the greatest benefit.

**Database:** CINAHL

**The Mendelsohn Maneuver and its Effects on Swallowing: Kinematic Analysis in Three Dimensions Using Dynamic Area Detector CT.**

**Author(s):** Inamoto, Yoko; Saitoh, Eiichi; Ito, Yuriko; Kagaya, Hitoshi; Aoyagi, Yoichiro; Shibata, Seiko; Ota, Kikuo; Fujii, Naoko; Palmer, Jeffrey B.

**Source:** *Dysphagia* (0179051X); Aug 2018; vol. 33 (no. 4); p. 419-430

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29280015

Available at [Dysphagia](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [Dysphagia](#) - from EBSCO (MEDLINE Complete)

**Abstract:** This study investigated the effects of Mendelsohn maneuver with three-dimensional kinematic analysis. Nine female speech-language pathologists (nine females, mean  $\pm$  SD 27.1  $\pm$  3.5 years old) underwent 320-row area detector scan during swallows of 4-ml nectar-thick liquid using with no maneuvers (control) and with Mendelsohn maneuver (MM). Critical event timing (hyoid, soft palate, epiglottis, laryngeal vestibule, true vocal cords (TVC), UES), hyoid and laryngeal excursion, cross-sectional area of UES, and volume of pharyngeal cavity and bolus were measured and compared between two swallows. In MM, all the events were significantly prolonged with delayed termination time ( $p < 0.05$ ) except UES opening. The onset, termination, and duration of UES opening were not significantly affected by MM nor was timing of bolus transport. The hyoid bone was positioned significantly higher at maximum displacement ( $p = 0.011$ ). Pharyngeal constriction ratio was 95.1% in control and 100% of all subjects in MM. Duration of minimum pharyngeal volume was significantly longer in MM than in control ( $p = 0.007$ ). The MM produces several distinct changes in the kinematics of swallowing in healthy subjects with no dysphagia. The changes in the timing and magnitude of hyoid displacements and prolonged closure of the pharynx during swallowing suggest the utility of MM for improving the safety and efficiency of swallowing in selected cases.

**Database:** CINAHL

**Anodal tDCS of the swallowing motor cortex for treatment of dysphagia in multiple sclerosis: a pilot open-label study.**

**Author(s):** Cosentino, G.; Gargano, R.; Bonura, G.; Realmuto, S.; Tocco, E.; Ragonese, P.; Gangitano, M.; Alfonsi, E.; Fierro, B.; Brighina, F.; Salemi, G.

**Source:** *Neurological Sciences*; Aug 2018; vol. 39 (no. 8); p. 1471-1473

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29756180

**Abstract:** Swallowing difficulties are a common symptom of multiple sclerosis (MS). The early detection and treatment of dysphagia is critical to prevent complications, including poor nutrition, dehydration, and lung infections. Recently, transcranial direct current stimulation (tDCS) has been proven to be effective in ameliorating swallowing problems in stroke patients. In this pilot study, we aimed to assess safety and efficacy of transcranial direct current stimulation (tDCS) in the treatment

of dysphagia in MS patients. We screened 30 patients by using the 10-item DYsphagia in MULTiple Sclerosis (DYMUS) questionnaire, and patients at risk for dysphagia underwent a clinical and fiberoptic endoscopic evaluation of swallowing (FEES). Six patients who presented with mild to moderate dysphagia underwent the experimental procedures. These consisted of 5 sessions of anodal tDCS applied in consecutive days over the right swallowing motor cortex. Patients were followed-up at 1 week, 1 month and 3 months after treatment, and changes in the Dysphagia Outcome and Severity Scale (DOSS) score between baseline and post-tDCS were assessed. Our results showed that in all patients, the tDCS treatment determined a mild but significant clinical benefit (one-point improvement in the DOSS score) lasting up to 1 month. In conclusion, our preliminary results show that anodal tDCS has therapeutic potential in the treatment of swallowing problems in patients suffering with MS. However, future double-blind, randomized, and sham-controlled studies are needed to confirm the present findings.

**Database:** CINAHL

### **Anterior and posterior diaphragm kinesio taping for intractable hiccups after ischemic stroke: A case report.**

**Author(s):** Gallagher, Julie

**Source:** Medicine; Aug 2018; vol. 97 (no. 34); p. 1-4

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30142812

Available at [Medicine](#) - from Europe PubMed Central - Open Access

Available at [Medicine](#) - from IngentaConnect - Open Access

**Abstract:**Rationale: Pathophysiologic mechanisms of the central nervous system, such as stroke, can be associated with intractable hiccups. Intractable hiccups can be associated with potentially fatal consequences, thus requiring safe management in an inpatient rehabilitation facility (IRF) setting with a multidisciplinary team approach to optimize mobility and feeding. Patient Concerns: A 49-year-old male presented to the emergency department with complaints of vomiting and dizziness. Diagnoses: Head computed tomography revealed moderate acute inferior cerebellar infarct in the territory of the posterior inferior cerebellar artery. He required a percutaneous endoscopic gastrostomy tube for feeding and developed severe intractable hiccups which he rated 7/10 on the hiccup assessment instrument (HAI) on IRF admission. Functional independence measure (FIM) score for transfers was 2 (maximum assist), walking was 1 (total assist), stairs were not attempted on IRF admit due to safety concerns, and feeding (eating) was 1 (total assist). Interventions: Anterior and posterior diaphragm kinesio taping was applied on day 6 of IRF physical therapy in an attempt to inhibit diaphragm spasm and intractable hiccups given that pharmacologic interventions had not been effective up to that point (Table 3). Outcomes: The HAI decreased from 7/10 on day 6 of IRF physical therapy to 0/10 on day 8. The taping was reapplied every 3 to 5 days. On IRF day 9, his diet was advanced to a regular consistency with extra moisture and thin liquids. On day 21, hiccup severity remained 0/10 on the HAI, while FIM score for transfers was 4 (minimal assist), walking was 4 (minimal assist), stairs was 4 (minimal assist), and feeding (eating) was 7 (independent). Lessons: Diaphragm kinesio taping is a very effective treatment at reducing hiccup severity in a patient after ischemic stroke, while at the same time reducing burden of care for caregivers per FIM score improvement and improving diet to that of regular consistency with extra moisture and thin liquids.

**Database:** CINAHL

## OTHER

### **Visual field plasticity in hearing users of sign language.**

**Author(s):** Stoll, Chloé; Palluel-Germain, Richard; Gueriot, François-Xavier; Chiquet, Christophe; Pascalis, Olivier; Aptel, Florent

**Source:** Vision Research; Dec 2018; vol. 153 ; p. 105-110

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30165056

**Abstract:** Studies have observed that deaf signers have a larger Visual Field (VF) than hearing non-signers with a particular large extension in the lower part of the VF. This increment could stem from early deafness or from the extensive use of sign language, since the lower VF is critical to perceive and understand linguistics gestures in sign language communication. The aim of the present study was to explore the potential impact of sign language experience without deafness on the VF sensitivity within its lower part. Using standard Humphrey Visual Field Analyzer, we compared luminance sensitivity in the fovea and between 3 and 27 degrees of visual eccentricity for the upper and lower VF, between hearing users of French Sign Language and age-matched hearing non-signers. The sensitivity in the fovea and in the upper VF were similar in both groups. Hearing signers had, however, higher luminance sensitivity than non-signers in the lower VF but only between 3 and 15°, the visual location for sign language perception. Sign language experience, no associated with deafness, may then be a modulating factor of VF sensitivity but restricted to the very specific location where signs are perceived.

**Database:** CINAHL

### **Hearing Impairment and Type 1 Diabetes in the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications (DCCT/EDIC) Cohort.**

**Author(s):** Schade, David S.; Lorenzi, Gayle M.; Braffett, Barbara H.; Xiaoyu Gao; Bainbridge, Kathleen E.; Barnie, Annette; Cruickshanks, Karen J.; Dalton, Dayna; Diminick, Lisa; Gubitosi-Klug, Rose; Kramer, John R.; Lachin, John M.; Larkin, Mary E.; Cowie, Catherine C.; Gao, Xiaoyu

**Source:** Diabetes Care; Dec 2018; vol. 41 (no. 12); p. 2495-2501

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30254082

Available at [Diabetes care](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Objective: To evaluate the prevalence of hearing impairment in participants with type 1 diabetes enrolled in the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications (DCCT/EDIC) study and compare with that of a spousal control group without diabetes. Among participants with type 1 diabetes, to evaluate the association of hearing impairment with prior DCCT therapy and overall glycemia. Research Design and Methods: DCCT/EDIC participants (n = 1,150) and 288 spouses without diabetes were recruited for the DCCT/EDIC Hearing Study. All subjects completed a self-administered questionnaire, medical history, and physical measurements. Audiometry was performed by study-certified personnel; audiograms were assessed centrally. Speech-frequency (pure-tone average [PTA] thresholds at 500, 1,000, 2,000, and 4,000 Hz) and high-frequency impairment (PTA thresholds at 3,000, 4,000, 6,000, and 8,000 Hz) were defined as PTA >25 dB hearing loss. Logistic regression models were adjusted for age and

sex. Results: DCCT/EDIC participants and spousal control subjects were similar in age, race, education, smoking, and systolic blood pressure. There were no statistically significant differences between groups in the prevalence or adjusted odds of speech- or high-frequency impairment in either ear. Among participants with type 1 diabetes, for every 10% increase in the time-weighted mean HbA1c, there was a 32% (95% CI 1.15-1.50) and 19% (95% CI 1.07-1.33) increase in speech- and high-frequency hearing impairment, respectively. Conclusions: We found no significant difference in the prevalence of hearing impairment between the group with type 1 diabetes and the spousal control group. Among those with type 1 diabetes, higher mean HbA1c over time was associated with hearing impairment.

**Database:** CINAHL

### **The possible effect of human menopausal gonadotropin on the audio-vestibular system.**

**Author(s):** Abdel-Salam, Montaser; Abdel-Naby Awad, Osama G.; El-Badry, Mohamed; Ibrahim, Ahmed; Ibrahiem, Mahmoud Hosny

**Source:** Auris Nasus Larynx; Dec 2018; vol. 45 (no. 6); p. 1166-1172

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29747963

**Abstract:** Objective: Human menopausal gonadotropin (HMG) is one of the commonest drugs used for ovarian stimulation with no reports on the audio-vestibular system. This study aims to examine HMG on the hearing profile of patients planning intracytoplasmic sperm injection (ICSI). Methods: This prospective study was conducted from June 2016 to June 2017 in a tertiary referral hospital. The audio-vestibular system of a total of 30 patients was evaluated using pure tone audiometry, distortion product otoacoustic emissions (DPOAEs in the form of a DP-gram) and Vestibular-evoked myogenic potential (VEMP) immediately before therapy and at the day 10 after therapy. Audio-vestibular adverse effects including hearing loss, tinnitus, vertigo, and otalgia were also considered. Results: Significant elevations in hearing thresholds were found on comparing thresholds at the day 10 at the onset of the study. The elevations were mostly at frequencies (1000, 2000 and 8000Hz) and did not affect speech perception. For DPOAE, significant differences were observed at all F2 frequencies on comparing both amplitudes and signal to noise ratios. Otologic complaints were significant for tinnitus and hearing loss. Conclusion: Significant auditory and vestibular adverse effects may result from HMG therapy, indicating the importance of prompt monitoring of auditory functions in these patients.

**Database:** CINAHL

### **Volumetric modulated arc therapy (VMAT) in the treatment of esophageal cancer patients.**

**Author(s):** Martini, Stefania; Arcadipane, Francesca; Strignano, Paolo; Spadi, Rosella; Contu, Viviana; Fiandra, Christian; Ragona, Riccardo; Catalano, Giorgia; Satolli, Maria Antonietta; Camandona, Michele; Romagnoli, Renato; Ricardi, Umberto; Franco, Pierfrancesco

**Source:** Medical Oncology; Dec 2018; vol. 35 (no. 12); p. 1-1

**Publication Date:** Dec 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30284647

**Abstract:** The aim of the study is to evaluate feasibility, safety, toxicity profile, and dosimetric results of volumetric modulated arc therapy (VMAT) to deliver definitive or pre-operative radiation in locally advanced esophageal cancer patients. A total of 68 patients were treated with VMAT between

March 2014 and March 2018 (44% vs 56% for definitive and neoadjuvant settings, respectively). Dose prescription differed depending on the clinical scenario (54-60 Gy in 30 fractions for definitive treatments; 41.4/45 Gy in 23-25 fractions in the pre-operative setting). Most of the patients were given concurrent chemotherapy. Two coplanar and one non-coplanar arcs were employed for VMAT delivery. Treatment was generally well tolerated. Acute toxicity was generally mild. In patients treated with definitive intent,  $\geq$  G3 toxicities were observed for esophagitis (30%), anorexia (26.7%), fatigue (26.7%), nausea (6.7%), and vomiting (3.3%). In patients treated within a neoadjuvant approach,  $\geq$  G3 anorexia (21%), esophagitis (15.8%), fatigue (13.3%), nausea (5.3%), and vomiting (2.6%) were observed. Dosimetric results were consistent in term of both target coverage and normal tissue sparing. In conclusion, VMAT proved to be a feasible, safe, and effective strategy to deliver definitive or pre-operative radiation in locally advanced esophageal cancer patients.

**Database:** CINAHL

### **Motor Retraining (MoRe) for Functional Movement Disorders: Outcomes From a 1-Week Multidisciplinary Rehabilitation Program.**

**Author(s):** Jacob, Alexandra E.; Kaelin, Darryl L.; Roach, Abbey R.; Ziegler, Craig H.; LaFaver, Kathrin

**Source:** PM & R: Journal of Injury, Function & Rehabilitation; Nov 2018; vol. 10 (no. 11); p. 1164-1172

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29783067

**Abstract:**Background: Functional movement disorders (FMDs) are conditions of abnormal motor control thought to be caused by psychological factors. These disorders are commonly seen in neurologic practice, and prognosis is often poor. No consensus treatment guidelines have been established; however, the role of physical therapy in addition to psychotherapy has increasingly been recognized. This study reports patient outcomes from a multidisciplinary FMD treatment program using motor retraining (MoRe) strategies.Objective: To assess outcomes of FMD patients undergoing a multidisciplinary treatment program and determine factors predictive of treatment success.Design: Retrospective chart review.Setting: University-affiliated rehabilitation institute.Patients: Thirty-two consecutive FMD patients admitted to the MoRe program from July 2014-July 2016.Intervention: Patients participated in a 1-week, multidisciplinary inpatient treatment program with daily physical, occupational, speech therapy, and psychotherapy interventions.Main Outcome Measurements: Primary outcome measures were changes in the patient-rated Clinical Global Impression Scale (CGI) and the physician-rated Psychogenic Movement Disorder Rating Scale (PMDRS) based on review of standardized patient videos. Measurements were taken as part of the clinical evaluation of the program.Results: Twenty-four of the 32 patients were female with a mean age of 49.1 ( $\pm$ 14.2) years and mean symptom duration of 7.4 ( $\pm$ 10.8) years. Most common movement phenomenologies were abnormal gait (31.2%), hyperkinetic movements (31.2%), and dystonia (31.2%). At discharge, 86.7% of patients reported symptom improvement on the CGI, and self-reported improvement was maintained in 69.2% at the 6-month follow-up. PMDRS scores improved by 59.1% from baseline to discharge. Longer duration of symptoms, history of abuse, and comorbid psychiatric disorders were not significant predictors of treatment outcomes.Conclusions: The majority of FMD patients experienced improvement from a 1-week multidisciplinary inpatient rehabilitation program. Treatment outcomes were not negatively correlated with longer disease duration or psychiatric comorbidities. The results from our study are encouraging, although further long-term prospective randomized studies are needed.Level Of Evidence: III.

**Database:** CINAHL

**Sudden hearing loss after cialis (tadalafil) use: A unique case of cochlear hydrops.**

**Author(s):** Wester, Jacob L.; Ishiyama, Gail; Karnezis, Stellios; Ishiyama, Akira

**Source:** Laryngoscope; Nov 2018; vol. 128 (no. 11); p. 2615-2618

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30208203

Available at [The Laryngoscope](#) - from Wiley

**Abstract:**We discuss a unique case of sudden sensorineural hearing loss after Cialis (tadalafil) use, a phosphodiesterase 5 (PDE5) inhibitor, and the implication of ipsilateral cochlear hydrops seen on magnetic resonance imaging (MRI). We report a case of a 53-year-old male with unilateral low-frequency sudden sensorineural hearing loss (SSNHL) after ingestion of tadalafil. The SSNHL occurred 1 day after ingestion and was associated with aural fullness and tinnitus. There were no symptoms of vertigo. He received oral prednisone immediately after the onset of hearing loss without improvement. Delayed intravenous contrast-enhanced three-dimensional Fluid-attenuated inversion recovery MRI revealed ipsilateral dilation of the cochlear duct without any hydronic change in the vestibular system. Acetazolamide therapy was initiated, and his symptoms improved. A posttreatment audiogram revealed an increase in threshold of 15 dB. To the best of our knowledge, this is the first case of cochlear hydrops visualized on imaging after a PDE5 inhibitor induced SSNHL. Tadalafil and other PDE5 inhibitors have a known association with SSNHL. Despite several proposed mechanisms, there is inconclusive evidence of a causal relationship. Our presented case suggests that cochlear hydrops may be one possible mechanism of PDE5 inhibitor-associated SSNHL. MRI should be considered in the evaluation of such patients who do not respond to oral steroids as initial treatment. Laryngoscope, 2615-2618, 2018.

**Database:** CINAHL

**Language diversity, language disorder, and fetal alcohol spectrum disorder among youth sentenced to detention in Western Australia.**

**Author(s):** Kippin, Natalie R.; Leitão, Suze; Watkins, Rochelle; Finlay-Jones, Amy; Condon, Carmen; Marriott, Rhonda; Mutch, Raewyn C.; Bower, Carol

**Source:** International Journal of Law & Psychiatry; Nov 2018; vol. 61 ; p. 40-49

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30420110

**Abstract:**Background: While studies confirm high prevalence of language disorder among justice-involved young people, little is known about the impact of Fetal Alcohol Spectrum Disorder (FASD) on language among this population. It is also not clear how language skills vary according to language diversity in Australian youth justice settings, where a disproportionate number of justice-involved youth are Aboriginal and may not speak Standard Australian English (SAE) as their first language. Language skills are important to understand, as language disorder and language difference can lead to a mismatch between the communication skills of a young person and the communication skills of the justice workforce with whom they are communicating. In the highly verbal environments that are common to justice systems, language disorder and language difference may result in a young person misunderstanding legal information and expectations placed on them and not being adequately understood by the justice workforce. Methods: This study examined the language skills of 98 young people sentenced to detention in Western Australia (WA), who participated in a cross-sectional study examining the prevalence of FASD. Language skills assessed using standardised and non-standardised tasks were analysed by the three major language groups identified: speakers of

SAE, Aboriginal English and English as an additional language. Results: We identified rich diversity of languages, and multilingualism was common. Most young people for whom English was not their first language demonstrated difficulties in SAE competence. Further, nearly one in two young people were identified with language disorder - over half of whom had language disorder associated with FASD. Conclusions: This study has documented language diversity and the prevalence of language disorder associated with FASD among a representative sample of youth sentenced to detention in WA. Results underscore the need for the justice workforce to consider language difference when working with justice-involved youth, as well as language disorder and FASD. The findings also demonstrate the need for speech pathology to be embedded as core service in youth justice systems, working in collaboration with local cultural and language advisors and accredited interpreters. This can better enable appropriate identification of and response to communication and associated rehabilitation needs of young people navigating youth justice systems.

**Database:** CINAHL

### **The interpreter's voice: Carrying the bilingual conversation in interpreter-mediated consultations in pediatric oncology care.**

**Author(s):** Granhagen Jungner, Johanna; Tiselius, Elisabet; Blomgren, Klas; Lützén, Kim; Pergert, Pernilla

**Source:** Patient Education & Counseling; Nov 2018; vol. 101 (no. 11)

**Publication Date:** Nov 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30413308

**Abstract:** Objectives: The objective of this study was to explore interpreters' perceived strategies in the interaction in interpreter-mediated consultations between healthcare personnel and patients/families with limited Swedish proficiency in pediatric oncology care. Methods: This study had an inductive approach using an exploratory qualitative design. A total of eleven semi-structured interviews were performed with interpreters who had experience interpreting in pediatric oncology care. Results: The interpreters' perceived strategies were divided into four generic categories; strategies for maintaining a professional role, strategies for facilitating communication, strategies for promoting collaboration, and strategies for improving the framework of interpreting provision. These four generic categories were then merged into the single main category of carrying the bilingual conversation. Conclusions: The interpreters stretch their discretionary power in order to carry the bilingual conversation by using strategies clearly outside of their assignment. Practical Implications: The study contributes to the understanding of the interpreter-mediated consultation in pediatric oncology care, and this can be used to improve the care of patients and families in pediatric oncology care with limited knowledge of a country's majority language.

**Database:** CINAHL

### **Music enjoyment with cochlear implantation.**

**Author(s):** PrevotEAU, Charlotte; Chen, Stephanie Y.; Lalwani, Anil K.

**Source:** Auris Nasus Larynx; Oct 2018; vol. 45 (no. 5); p. 895-902

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29519690

**Abstract:** Since the advent of cochlear implant (CI) surgery in the 1960s, there have been remarkable technological and surgical advances enabling excellent speech perception in quiet with many CI

users able to use the telephone. However, many CI users struggle with music perception, particularly with the pitch-based and melodic elements of music. Yet remarkably, despite poor music perception, many CI users enjoy listening to music based on self-report questionnaires, and prospective studies have suggested a disassociation between music perception and enjoyment. Music enjoyment is arguably a more functional measure of one's listening experience, and thus enhancing one's listening experience is a worthy goal. Recent studies have shown that re-engineering music to reduce its complexity may enhance enjoyment in CI users and also delineate differences in musical preferences from normal hearing listeners.

**Database:** CINAHL

**Conservative therapy for the treatment of patients with somatic tinnitus attributed to temporomandibular dysfunction: study protocol of a randomised controlled trial.**

**Author(s):** De Hertogh, Willem; van der Wal, Annemarie Christien; Nieste, Evelien; Michiels, Sarah; Topsakal, Vedat; Jacquemin, Laure; Gilles, Annick; Van de Heyning, Paul; Braem, Marc; Hesters, Marianne; Visscher, Corine

**Source:** Trials; Oct 2018; vol. 19 (no. 1)

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30314506

Available at [Trials](#) - from BioMed Central

Available at [Trials](#) - from Europe PubMed Central - Open Access

Available at [Trials](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Tinnitus is a highly prevalent symptom affecting 10-15% of the adult population. It often affects patient quality of life and frequently causes distress. When subjective tinnitus can be elicited by the somatosensory system of the cervical spine or temporomandibular area it is termed somatic tinnitus. The first aim of the current study is to investigate the effect of the best evidence conservative temporomandibular disorder (TMD) treatment on tinnitus in patients with co-existence of tinnitus and TMD or oral parafunctions compared to no treatment. The second aim is to identify a subgroup of patients with tinnitus that benefits from the conservative temporomandibular joint treatment. Methods and Design: This study is a randomised controlled trial with a delayed treatment design. Patients with a TMD (TMD pain screener  $\geq 3$  points) or oral parafunctions (such as clenching and bruxism), who are suffering from moderate to severe subjective tinnitus (Tinnitus Functional Index (TFI) between 25 and 90 points), will be recruited from the tertiary tinnitus clinic of the University Hospital of Antwerp, Edegem, Belgium. Patients will be excluded in case of clear otological or neurological causes of the tinnitus, progressive middle ear pathology, intracranial pathology, traumatic cervical spine or temporomandibular injury in the past 6 months, severe depression as diagnosed by a psychologist, tumours, previous surgery in the orofacial area, substance abuse that may affect the outcome measures, any contra-indication for physical therapy treatment directed to the orofacial area or when they received TMD treatment in the past 2 months. After screening for eligibility, baseline data among which scores on the TFI, tinnitus questionnaire (TQ), mean tinnitus loudness as measured with visual analogue scale (VAS), TMD pain screener, and a set of temporomandibular joint tests will be collected. Patients will be randomised in an early-start group and in a delayed-start group of therapy by 9 weeks. Patients will receive conservative TMD treatment with a maximum of 18 sessions within 9 weeks. At baseline (week 0), at the start of therapy (weeks 0 or 9), 9 weeks after therapy (weeks 9 or 18), and at follow-up (weeks 18 or 27) data from the TFI, TQ, VAS mean tinnitus loudness and the TMD pain screener will be collected. Discussion: Herein, we aim to improve the quality of care for patients with tinnitus attributed to TMD or oral parafunctions. By evaluating the effect of state-of-the-art TMD treatment

on tinnitus complaints, we can investigate the usefulness of TMD treatment in patients with somatic tinnitus. Trial Registration: 3 July 2017, version 1 of the protocol, ClinicalTrials.gov NCT03209297 .

**Database:** CINAHL

**Cochlear implantation in patients with bilateral deafness caused by otitis media with ANCA-associated vasculitis (OMAAV): A report of four cases.**

**Author(s):** Watanabe, Takeshi; Yoshida, Haruo; Kishibe, Kan; Morita, Yuka; Yoshida, Naohiro; Takahashi, Haruo; Harabuchi, Yasuaki

**Source:** Auris Nasus Larynx; Oct 2018; vol. 45 (no. 5); p. 922-928

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29807863

**Abstract:**Objective: Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) without systemic symptoms but with initial symptoms related to the ear, such as hearing loss, otalgia, and dizziness, has recently been reported. We have categorized this condition as otitis media with AAV (OMAAV), and have recently proposed its diagnostic criteria. Methods: To determine the effectiveness of cochlear implantation (CI) in patients with profound hearing loss due to OMAAV. We examined the language understanding ability of four patients with bilateral profound or total deafness due to OMAAV, who underwent CI. Results: In three of the four patients, the language understanding ability with CI was poor. These three patients with poor performance had characteristic features, including a short interval from the onset of ear symptoms to total deafness and clear enhancement of the cochlea on magnetic resonance imaging (MRI). Conclusion: The poor results observed in patients with a rapidly progressive history of hearing loss were attributed to possible severe and profuse intracochlear bleeding and/or destruction of structures, including the spiral ganglion. All the three patients showed contrast enhancement in the inner ear on MRI. We believe that preoperative evaluation of the history of hearing loss as well as the findings of contrast-enhanced MRI is important for predicting the prognosis after CI.

**Database:** CINAHL

**Pneumolabyrinth, intracochlear and vestibular fluid loss after cochlear implantation.**

**Author(s):** Moteki, Hideaki; Fujinaga, Yasunari; Goto, Tetsuya; Usami, Shin-Ichi

**Source:** Auris Nasus Larynx; Oct 2018; vol. 45 (no. 5); p. 1116-1120

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29680680

**Abstract:**The present case was a 38-year-old male who presented with progressive hearing loss, resulting in profound bilateral hearing loss. He had a past history of childhood medulloblastoma, which was treated with posterior fossa craniotomy and radiotherapy. A ventriculoperitoneal (VP) shunt was put in place to manage the hydrocephalus. Cochlear implantation (CI) was carried out on his right ear by a standard procedure. At CI activation, the electric impedance of the electrode was very high, and computed tomography revealed that there was no area of liquid density, suggesting depletion of the perilymph in the cochlea and vestibule. Eight months later, the impedance improved gradually, and the cochlea was filled with perilymph. Consequently, one of the causes of the pneumolabyrinth in the present case was that a scarred stenotic cochlear canaliculus secondary to surgery or radiation therapy might have prevented the CSF from filling the scala. In addition, it is

also possible that the VP shunt might have altered the CSF pressure, leading to depletion of the perilymph.

**Database:** CINAHL

**Aminoglycoside-associated nonsyndromic deafness and speech disorder in mitochondrial A1555G mutation in a family: A case report.**

**Author(s):** Ou, Yang-Hao; Chen, Andy Wei-Ge; Fan, Jun-Yang; Cheng, Wen-Ling; Lin, Ta-Tsung; Chen, Mu-Kuan; Liu, Chin-San

**Source:** Medicine; Oct 2018; vol. 97 (no. 40)

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30335006

Available at [Medicine](#) - from Europe PubMed Central - Open Access

Available at [Medicine](#) - from IngentaConnect - Open Access

**Abstract:**Rationale: Mitochondrial DNA mutations have been associated with many maternal inherited diseases. A1555G mutation in mtDNA effects the gene code for rRNA, resulting in the structural change of human ribosome rendering it susceptible to binding of the common antibiotic, aminoglycosides. Such mutation has linked with non-syndromic hearing loss and is one of the most common mtDNA mutations in Asian populations. Patient Concerns: A 50-year-old Taiwanese female visited our neurology department with concern for multiple members with hearing loss in her family, including herself. Diagnoses: Physical examination findings were not significant besides hearing loss and brain MRI did not reveal any lesions. BAEP confirmed bilateral peripheral sensory deficit. Given the multiple cases of hearing loss in the family, a genetic cause was suspected. Using PCR and sequences chromatogram technique we have identified A1555G mutation on her mtDNA affecting region codes for 12S rRNA. Additionally, we observed severe speech disorder in two young family members with the onset of hearing loss began in their early childhood. Interventions: The patient declined any form of intervention at the time for personal reasons. Outcomes: The patient was satisfied with the diagnosis, her and her families are continuously followed by our neurology department. Lessons: We report on a family with mtDNA mutation hearing loss that is related to exposure to aminoglycosides. Children with such mutation are at high risk for impaired linguistic function. Early identification and intervention with cochlear implant should be considered.

**Database:** CINAHL

**Unilateral Versus Bilateral Cochlear Implantation in Children With Auditory Neuropathy Spectrum Disorder (ANSD).**

**Author(s):** Nassiri, Ashley M.; Yawn, Robert J.; Brown, Christine L.; O'Malley, Matthew R.; Bennett, Marc L.; Labadie, Robert F.; Haynes, David S.; Rivas, Alejandro

**Source:** Otology & Neurotology; Oct 2018; vol. 39 (no. 9)

**Publication Date:** Oct 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30199499

**Abstract:**Objective: To evaluate audiologic outcomes following unilateral cochlear implantation with contralateral hearing aid (unilateral CI+ HA) versus bilateral CI in children with auditory neuropathy spectrum disorder (ANSD). Study Design: Retrospective case review. Setting: Tertiary Care Otologic Practice. Patients: Twenty-three patients with ANSD who underwent unilateral CI+ HA or bilateral

CI.Interventions: Rehabilitative (CI).Outcome Measures: Speech perception scores and achievement of open-set speech.Results: Preoperatively, all patients demonstrated lack of open-set speech perception with hearing aids (HAs) alone. Of the 23 patients included, 56.5% (n= 13) had developmental delay. Thirteen patients underwent unilateral CI+ HA and 10 patients underwent bilateral CI. The median ages at CI activation were 3.3 and 2.0 years in the unilateral CI+ HA and bilateral CI groups, respectively (p=0.0688), with median lengths of CI use of 45.9 and 47.2 months, respectively (p=0.8438). The unilateral CI+ HA and bilateral CI groups achieved open-set speech perception in 76.9% and 90.0% of cases, respectively (p= 0.6036), within median times of 19.5 and 28.0 months, respectively (p=0.6334). Within the unilateral CI+ HA group, the median aided PTAs in the contralateral ears of patients who did and did not achieve open-set speech were 57.5 dB HL (range, 42.5-91.7 dB HL) and 75.0 dB HL (range, 62.5-111.3 dB HL) (p=0.0455).Conclusions: Both bilateral CI and unilateral CI+ HA groups achieved high rates of open-set speech perception. Bilateral CI may be beneficial in patients with bilateral hearing loss or those that fail to progress with unilateral CI+ HA.

**Database:** CINAHL

### **Is formal thought disorder in schizophrenia related to structural and functional aberrations in the language network? A systematic review of neuroimaging findings.**

**Author(s):** Cavelti, Marialuisa; Kircher, Tilo; Nagels, Arne; Strik, Werner; Homan, Philipp

**Source:** Schizophrenia Research; Sep 2018; vol. 199 ; p. 2-16

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29510928

**Abstract:**Formal thought disorder (FTD) is a core feature of schizophrenia, a marker of illness severity and a predictor of outcome. The underlying neural mechanisms are still a matter of debate. This study aimed at 1) reviewing the literature on the neural correlates of FTD in schizophrenia, and 2) testing the hypothesis that FTD correlates with structural and functional aberrations in the language network. Medline, PsychInfo, and Embase were searched for neuroimaging studies, which applied a clinical measure to assess FTD in adults with schizophrenia and were published in English or German in peer-reviewed journals until December 2016. Of 412 articles identified, 61 studies were included in the review. Volumetric studies reported bilateral grey matter deficits (L > R) to be associated with FTD in the inferior frontal gyrus, the superior temporal gyrus and the inferior parietal lobe. The same regions showed hyperactivity in resting state functional magnetic resonance imaging (fMRI) studies and both hyper- and hypoactivity in fMRI studies that employed semantic processing or free speech production tasks. Diffusion tensor imaging studies demonstrated white matter aberrations in fibre tracts that connect the frontal and temporo-parietal regions. FTD in schizophrenia was found to be associated with structural and functional aberrations in the language network. However, there are studies that did not find an association between FTD and neural aberrations of the language network and regions not included in the language network have been associated with FTD. Thus, future research is needed to clarify the specificity of the language network for FTD in schizophrenia.

**Database:** CINAHL

### **Negative voice-content as a full mediator of a relation between childhood adversity and distress ensuing from hearing voices.**

**Author(s):** Rosen, Cherise; McCarthy-Jones, Simon; Jones, Nev; Chase, Kayla A.; Sharma, Rajiv P.

**Source:** Schizophrenia Research; Sep 2018; vol. 199 ; p. 361-366

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29580740

**Abstract:**A key predictor of whether or not an individual who hears voices (auditory verbal hallucinations; AVH) meets criteria for a psychiatric diagnosis is the level of negative content of the voices (e.g., threats, criticism, abuse). Yet the factors that contribute to negative voice-content are still not well understood. This study aimed to test the hypotheses that levels of childhood adversity would predict levels of negative voice-content, and that negative voice-content would partially mediate a relation between childhood adversity and voice-related distress. These hypotheses were tested in a clinical sample of 61 patients with formally diagnosed psychotic disorders (48 schizophrenia, 13 bipolar). We found evidence consistent with negative voice-content fully (not partially) mediating the relation between childhood adversity and voice-related distress. Although bivariate analyses found depression to be associated with both negative voice-content and voice-related distress, we found no evidence of an indirect effect of childhood adversity on either negative voice-content or voice-related distress via depression. Alternative study designs are now needed to test if our findings are replicable and causal. Should they be, it will be necessary for psychological therapies to devise ways to reduce negative voice-content itself, rather than just changing beliefs about voices. A number of techniques are discussed (Avatar Therapy, Compassion Focused Therapy, voice-dialogue) that already show promise for this.

**Database:** CINAHL

### **Rehabilitation Characteristics in High-Performance Hospitals after Acute Stroke.**

**Author(s):** Sawabe, Masashi; Momosaki, Ryo; Hasebe, Kiyotaka; Sawaguchi, Akira; Kasuga, Seiji; Asanuma, Daichi; Suzuki, Shoya; Miyauchi, Narimi; Abo, Masahiro

**Source:** Journal of Stroke & Cerebrovascular Diseases; Sep 2018; vol. 27 (no. 9); p. 2431-2435

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29801813

**Abstract:**Background: Rehabilitation characteristics in high-performance hospitals after acute stroke are not clarified. This retrospective observational study aimed to clarify the characteristics of high-performance hospitals in acute stroke rehabilitation. Methods: Patients with stroke discharged from participating acute hospitals were extracted from the Japan Rehabilitation Database for the period 2006-2015. We found 6855 patients from 14 acute hospitals who were eligible for analysis in this study after applying exclusion criteria. We divided facilities into high-performance hospitals and low-performance hospitals using the median of the Functional Independent Measure efficiency for each hospital. We compared rehabilitation characteristics between high- and low-performance hospitals. Results: High-performance hospitals had significantly shorter length of stay. More patients were discharged to home in the high-performance hospitals compared with low-performance hospitals. Patients in high-performance hospitals received greater amounts of physical, occupational, and speech therapy. Patients in high-performance hospitals engaged in more self-exercise, weekend exercise, and exercise in wards. There was more participation of board-certified psychiatrists and social workers in high-performance hospitals. Conclusions: Our data suggested that amount, timing, and type of rehabilitation, and participation of multidisciplinary staff are essential for high performance in acute stroke rehabilitation.

**Database:** CINAHL

**Dyadic Drum Playing and Social Skills: Implications for Rhythm-Mediated Intervention for Children with Autism Spectrum Disorder.**

**Author(s):** Yoo, Ga Eul; Kim, Soo Ji

**Source:** Journal of Music Therapy; Sep 2018; vol. 55 (no. 3); p. 340-375

**Publication Date:** Sep 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30137544

**Abstract:**Current perspectives on social skills development of individuals with autism spectrum disorder (ASD) emphasize the interplay between motor and social skills. Given the evidence supporting this relationship, studies are needed to explore the potential benefit of rhythmic behaviors to improve social skills in children with ASD. The purpose of this two-part study was to confirm the relationship between dyadic drum playing and social skills and to further develop a rhythm-mediated music therapy intervention for improving the social skills of children with ASD. In Study 1, we conducted a factor analysis to examine whether dyadic drum playing was related to social skills in 42 children with typical development and 10 children with high-functioning ASD. In Study 2, we conducted a preliminary pilot of a rhythm-mediated music therapy intervention with eight children with ASD and measured changes in social skills (e.g., imitation and engagement in joint action with others) and dyadic drum playing behaviors. Study 1 findings included identification of four factors related to dyadic drum playing. The presence of rhythmic cueing and tempo adjustment correlated with social skills, providing a strong rationale for the use of dyadic drum playing to address social skills. In Study 2, participants showed decreased asynchrony when tapping with a partner at adjusted tempi after the rhythm-mediated intervention. Furthermore, participants showed greater engagement in joint action following the intervention. This study supports potential benefit of the rhythm-mediated intervention using dyadic drum playing and provides preliminary evidence strengthening its use in the social domain for individuals with ASD.

**Database:** CINAHL

**Long-term outcomes of twins based on the intended mode of delivery.**

**Author(s):** Fox, Nathan S.; Cohen, Natalie; Odom, Elizabeth; Gupta, Simi; Lam-Rachlin, Jennifer; Saltzman, Daniel H.; Rebarber, Andrei

**Source:** Journal of Maternal-Fetal & Neonatal Medicine; Aug 2018; vol. 31 (no. 16); p. 2164-2169

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 28573880

**Abstract:**Objective: Recent studies have shown that for twin pregnancies with a cephalic presenting first twin, planned vaginal delivery is not associated with adverse short-term neonatal outcomes, as compared to planned cesarean delivery. Our objective was to compare long-term outcomes in twins, based on planned mode of delivery. Study Design: This was a prospective, observational cohort of twin pregnancies delivered by a single MFM practice. All the patients with a twin pregnancy >34 weeks delivered from 2005-2014 were surveyed regarding pediatric outcomes at or after 2 years of life. The survey was mail-based, with phone follow-up for nonresponses or for clarification of answers. Using chi-square, Student's t-tests, and regression analysis we compared outcomes between women who planned a vaginal (with active management of the second stage) versus cesarean delivery. The main outcome measures were: (1) a composite of major adverse outcomes (death, cerebral palsy, necrotizing enterocolitis, chronic renal, heart, or lung disease); (2) a composite of minor adverse outcomes (learning disability, speech therapy, occupational therapy, physical therapy). Results: Five hundred and thirty-two women met inclusion criteria and 354 (66.5%)

responded. 178 (50.3%) women planned to have a cesarean delivery (100% of whom had a cesarean delivery) and 176 (49.7%) women planned to have a vaginal delivery (83% of whom had a vaginal delivery). The average age of the children at the time of the survey was 5.9 years. There were no differences in any pediatric outcomes between the two groups. After controlling for maternal age, IVF, obesity, and preeclampsia, the planned mode of delivery was not associated with a composite of major adverse outcomes (aOR 0.673, 95% CI 0.228, 1.985), nor a composite of minor adverse outcomes (aOR 0.767, 95% CI 0.496, 1.188). Conclusions: Planned vaginal delivery with active management of the second stage of labor in twin pregnancies >34 weeks is not associated with adverse childhood outcomes.

**Database:** CINAHL

### **Co-morbidities in Chinese children with attention deficit/hyperactivity disorder and reading disabilities.**

**Author(s):** Wang, Li-chih; Chung, Kevin Kien Hoa; Wang, Li-Chih

**Source:** *Dyslexia* (10769242); Aug 2018; vol. 24 (no. 3); p. 276-293

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 29271537

Available at [Dyslexia](#) - from EBSCO (MEDLINE Complete)

Available at [Dyslexia](#) - from EBSCO (Biomedical Reference Collection - Comprehensive)

**Abstract:** The co-morbidity of attention deficit/hyperactivity disorder (ADHD) and reading disorder (RD) is more frequent than expected. This investigation assessed the potential uniqueness of the co-morbidity of ADHD and RD and extended existing findings to the Chinese language. A parallel group design with a post hoc analysis of group differences was employed to compare 4 groups of children (30 with ADHD, 33 with RD, 28 with ADHD + RD, and 30 typically developing) regarding their reading comprehension, attention, reading-related abilities, and cognitive abilities. The findings indicated that children with RD and/or ADHD symptom(s) exhibited diverse cognitive profiles, and the distinguishing factor contributed to different inhibitions. Additionally, Chinese-speaking children with the co-morbid symptoms of RD and ADHD demonstrated greater deficits in auditory working memory and rapid naming than did the pure-deficit groups. Furthermore, although problems with phonological awareness were similar between the 2 groups, the deficiency of orthographic knowledge was more severe in children with RD than in the co-morbid group. The ADHD + RD group's cognitive and reading-related abilities displayed a relatively complicated pattern that should be considered in the diagnosis of either RD or ADHD and their remediation design.

**Database:** CINAHL

### **Chronic Nonallergic Rhinitis.**

**Author(s):** Sur, Denise K. C.; Plesa, Monica L.

**Source:** *American Family Physician*; Aug 2018; vol. 98 (no. 3); p. 171-176

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30215894

Available at [American Family Physician](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Chronic nonallergic rhinitis encompasses a group of rhinitis subtypes without allergic or infectious etiologies. Although chronic nonallergic rhinitis represents about one-fourth of rhinitis

cases and impacts 20 to 30 million patients in the United States, its pathophysiology is unclear and diagnostic testing is not available. Characteristics such as no evidence of allergy or defined triggers help define clinical subtypes. There are eight subtypes with overlapping presentations, including nonallergic rhinopathy, nonallergic rhinitis with nasal eosinophilia syndrome, atrophic rhinitis, senile or geriatric rhinitis, gustatory rhinitis, drug-induced rhinitis, hormonal rhinitis, and occupational rhinitis. Treatment is symptom-driven and similar to that of allergic rhinitis. Patients should avoid known triggers when possible. First-line therapies include intranasal corticosteroids, intranasal antihistamines, and intranasal ipratropium. Combination therapy with decongestants and first-generation antihistamines can be considered if monotherapy does not adequately control symptoms. Nasal irrigation and intranasal capsaicin may be helpful but need further investigation.

**Database:** CINAHL

**Twin-to-twin transfusion syndrome neurodevelopmental follow-up study (neurodevelopmental outcomes for children whose twin-to-twin transfusion syndrome was treated with placental laser photocoagulation).**

**Author(s):** Bolch, Christie; Fahey, Michael; Reddihough, Dinah; Williams, Katrina; Reid, Susan; Guzys, Angela; Cole, Stephen; Edwards, Andrew; Fung, Alison; Hodges, Ryan; Palma-Dias, Ricardo; Teoh, Mark; Walker, Susan

**Source:** BMC Pediatrics; Aug 2018; vol. 18 (no. 1)

**Publication Date:** Aug 2018

**Publication Type(s):** Academic Journal

**PubMedID:** 30068295

Available at [BMC pediatrics](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [BMC pediatrics](#) - from BioMed Central

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**Abstract:**Background: Twin-to-twin transfusion syndrome (TTTS) is a serious complication of 10-15% of twin or triplet pregnancies in which multiple fetuses share a single placenta. Communicating placental vessels allow one fetus (the donor) to pump blood to the other (the recipient). Mortality rates without intervention are high, approaching 100% in some series, with fetal deaths usually due to cardiac failure. Surgical correction using laser photocoagulation of communicating placental vessels was developed in the 1980s and refined in the 1990s. Since it was introduced in Victoria in 2006, laser surgery has been performed in approximately 120 pregnancies. Survival of one or more fetuses following laser surgery is currently > 90%, however the neurodevelopmental outcomes for survivors remain incompletely understood. Prior to laser therapy, at least one in five survivors of TTTS had serious adverse neurodevelopmental outcomes (usually cerebral palsy). Current estimates of neurological impairment among survivors following laser surgery vary from 4 to 31% and long-term follow-up data are limited.Methods: This paper describes the methodology for a retrospective cohort study in which children aged 24 months and over (corrected for prematurity), who were treated with laser placental photocoagulation for TTTS at Monash Health in Victoria, Australia, will undergo comprehensive neurodevelopmental assessment by a multidisciplinary team. Evaluation will include parental completion of pre-assessment questionnaires of social and behavioural development, a standardised medical assessment by a developmental paediatrician or paediatric neurologist, and age-appropriate cognitive and academic, speech and fine and gross motor assessments by psychologists, speech and occupational therapists or physiotherapists. Assessments will be undertaken at the Murdoch Children's Research Institute/Royal Children's Hospital, at Monash Health or at another mutually agreed location. Results will be recorded in a secure online

database which will facilitate future related research. Discussion: This will be the first study to report and evaluate neurodevelopmental outcomes following laser surgery for twin-to-twin transfusion syndrome in Victoria, and will inform clinical practice regarding follow-up of children at risk of adverse outcomes.

**Database:** CINAHL