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10696 Pattern of maximum voluntary contraction in patients with temporomandibular joint disorders before and after speech therapy with and without use of elastic bandage

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Introduction: In the field of speech therapy, in addition to orofacial myofunctional therapy indicated for patients with temporomandibular disorders (TMD), there is the use of therapeutic elastic bandage to provide external support. Regarding the assessment, surface electromyography (EMG) has been widely studied as a resource, as it allows the non-invasive assessment of the bioelectric phenomenon.

Objective: To verify whether there is a difference in the electromyographic values of maximum voluntary contraction (CVM) in patients with TMD before and after speech therapy intervention with and without the use of therapeutic elastic bandage.

Method: Research developed as a partial requirement of the PIBIC scholarship, the collection included 17 female volunteers, aged between 18 and 40 years, with a diagnosis of muscular or mixed DTM. Patients were divided into two groups classified as patients with bandage along with traditional therapy (GB) and traditional therapy group (GS). The patients were initially evaluated by surface electromyography in the situation of maximum voluntary contraction and after four weeks of intervention, a new evaluation was performed with the same instrument.

Results: In the GB group, the masseter and temporal muscles on the left side showed a statistical decrease in the CVM pattern, while the GS group did not present statistically significant values, but the CVM muscle values decreased.

Conclusion: The performance of myofunctional exercises associated or not with elastic bandage brought about a decrease in the value of CVM, which may be a consequence of a post-therapeutic muscle relaxation.

10700 Audiological evaluation in children with complete cleft palate: preliminary data

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Introduction: Central auditory processing skills tend to be more impaired in children with cleft lip and palate. This population often has a high prevalence of otitis media that lead to a barrier in sound conduction and a fluctuation in hearing, consequently leading to incomplete detection of sounds and difficulties in hearing skills.

Objectives: To analyze the findings of behavioral and electrophysiological assessments of hearing in children with cleft palate and compare them to a control group.

Methods: Cross-sectional and comparative study. The sample consisted of 45 children aged 7 to 11 years divided into a study group, with 15 children with complete cleft palate, and a control group, with 30 children without cleft, double-matched by age and sex. Basic peripheral audiological assessment, behavioral assessment (Digit Dichotic, Vowel Consonant Dichotic, Pediatric Speech Intelligibility, Gaps in Noise and Pitch Pattern Sequence) and electrophysiological assessment (Mismatch Negativity and Brainstem Auditory Evoked Potential) were performed.

Results: In the comparison between groups, the findings were significant (p<0.001) for the Pediatric Speech Intelligibility, Gaps in Noise and Pitch Pattern Sequence tests. In the analysis of Mismatch Negativity, higher latencies were observed in the study group and there was a significant correlation between the Pediatric Speech Intelligibility, Gaps in Noise and Pitch Pattern Sequence tests.

Conclusion: In the studied sample, the children in the study group presented worse performance in electrophysiological and behavioral assessments of central auditory processing when compared to a control group.

Keywords: cleft palate, hearing, child, auditory processing, electrophysiology.

10702 Intrauterine child exposure to pesticides: cochlear function and development of auditory and language skills

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Children are more sensitive to toxicokinetics because of organ susceptibility windows. The oto-aggressor status of pesticides is reported in several studies.

Objective: To analyze the influence of intrauterine exposure to pesticides on cochlear function and on the development of children's auditory and expressive language skills.

Methodology: Cross-sectional study. Pregnant women over 16 years of age and their children were included in the study. Refusal to sign the consent form led to the exclusion of the participant. Pyrethroids (3PBA and 4FPBA) were analyzed in maternal and newborn urine. 15 PCBs and 26 Organochlorines were extracted through umbilical cord puncture. IT-MAIS used to assess auditory skills and MUSS for expressive language. Cochlear function examined through TEOAE. The present answers were considered "pass".

Results: 41 newborns/preschoolers and 39 mothers. Female predominance (58.5%). Median birth weight of 3,130kg. Mean gestational age of 38 weeks (±2.17). 3PBA analysis performed in 51.3% of maternal urine and in 9.7% (4) of newborns, being found in all maternal samples and in two neonatal samples. 4FBA analyzed in five maternal samples, being detected in three. PCBs 28, 31 and 153 were present in 4.9%, 2.4% and 2.4%, respectively, of the samples. 12 OC types detected. Cochlear function of 97.6% of the sample fully evaluated; all with a "pass" result. MUSS and IT-MAIS had a median of 32 and 38 points, respectively.

Conclusion: No correlation was observed between prenatal exposure to pesticides and deficits in the evaluated functions.

Keywords: pesticides, hearing, language development.

10706 Motor dual-task and oropharyngeal deglutition in Parkinson's disease

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Introduction: Individuals with Parkinson's Disease (PD) have cognitive and motor disorders and the increase of cognitive demand during deglutition may decrease safety and increase the hospitalization/ mortality rate.

Objective: To verify the influence of a motor dual-task paradigm on the performance of oropharyngeal deglutition in individuals with Parkinson's disease.

Methods: Prospective cross-sectional clinical study (n°124282/2021). Participants were 10 individuals with Parkinson disease up to stage III based on Hoehn & Yahr scale, aged 55 and 85 years (mean age=74.6). Fiberoptic endoscopic evaluation of swallowing (FEES) was conducted by an otorhinolaryngologist under two conditions: 1-isolated deglutition task; 2-motor dual-task during deglutition-raise the arms following the evaluator's command while participants swallow. A thin liquid consistency was offered, standardized at level 0 of the International Dysphagia Diet Standardization Initiative, 5 and 10 ml, in a spoon. FEES exams were randomized and two independent/ blind judges analyzed them and scored the scales: Penetration Aspiration (PA) Scale and specific Scale for Posterior Oral Spillage(POS) in FEES. The Kappa index and Wilcoxon test were applied. The Kappa index showed from moderate to strong agreement between judges (K=0.6; p≤0.001 for POS and K=0.81; p≤0.001 for PA).

Results: Comparing the tasks, there was no statistically significant difference for POS (z=0.31; p=0.75 for 5ml/ z=0.33; p=0.74 for 10ml) and PA (z=0.00; p=1.0 for 5ml/ z=0.35; p=0.72 for 10ml).