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Vol 2| Issue 7| 2023

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ENT_BB CONNECTION

Vol 2| Issue 7| 2023

Comparison of Preoperative Anxiety, Bruxism, and Postoperative Pain Among Patients Undergoing ENT elective functional surgeries

Introduction: The Septoplasty, endoscopic sinus surgery, and tympanoplasty are the most commonly performed elective functional ear–nose–throat (ENT) surgeries, mortality risk of surgery, the consequences, and complications of the surgery, the risk of general anaesthesia, postoperative pain may disturb the quality of life of patients as patients may suffer with various degrees of anxiety[1]. Anxiety is common psychological reactions in patients in the preoperative period that is associated with both negative psychological and somatic outcomes and affects the postoperative care, treatment and rehabilitation process. Factors such as fear of waking up during the operation, fear of not waking up after the operation, fear of pain, possibility of staying in the intensive care unit, fear of death, and distrust of the operation team or hospital conditions can be counted among the causes of preoperative anxiety[2]. Bruxism is a repetitive uncontrolled parafunction consisting of excessive and abnormal activation of the temporomandibular joint (TMJ), the jaws, and the masticatory muscles such as clenching or grinding of the teeth by bracing or thrusting of the mandible[3]. The aim of this study is to investigated the relationship between preoperative anxiety, bruxism, and postoperative pain in inpatient groups undergoing three different functional otorhinolaryngology surgeries.

Methods: A prospective analytical observational study was conducted in 90 patients with nasal septal deviation as group A, chronic rhinosinusitis as group B, and chronic non-supportive otitis media as group C diagnosed in an ENT clinic and operated in the past 6 weeks. State-Trait Anxiety Inventory (STAI) questionnaire was completed after reading and signing the operation consent. To measure preoperative anxiety Amsterdam Preoperative, Anxiety and Information Scale (APAIS) developed. Surgery pain scores of the patients were evaluated via VAS. Postoperative VAS data were arranged as early 2nd, 4th, 6th, 12th, and 24th hour periods.

Results: The study result reveals that mean age of study participants was 32.5 ± 6.1 for women and 32.6 ± 9.3 for men and most common subjective complaints reported by patients in group A were nasal obstruction, postnasal drip and epistaxis. Postnasal drip, facial pressure/pressure feeling, and nasal obstruction in group B whereas in group C, the complaints were hearing loss, ear fullness and tinnitus.

A significant difference was found between the first examination and preoperative STAI values and mean preoperative STAI scores were 44.93 ± 4.50 in women and 42.93 ± 3.92 in men, and a significant difference was found between genders. Bruxism was detected in 17% of the patients at the first examination upon indication, and in 29% of the patients during the preoperative examination, a significant difference was found in terms of change A moderate positive correlation was found between the length of hospital stay and APAIS-AS and APAIS-IR. A significant difference was also found between APAIS-AS and APAIS-IR subscale values (P < .001) as shown in figure 1.

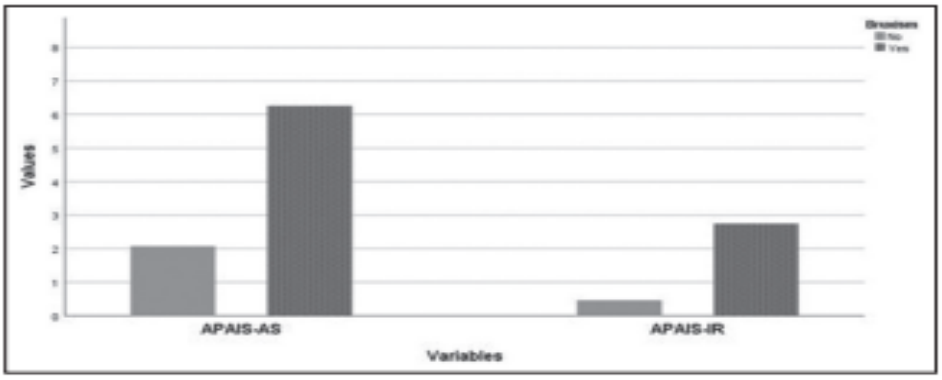

Figure 1: Comparing the values of the APAIS-AS and APAIS-IR between those with and without bruxism

Conclusion: The study suggests that attention to the psychological conditions of patients undergoing functional nasal surgery and especially tympanoplasty is vital. Acute and subacute bruxism can be considered a vital follow-up parameter that manifests itself in high preoperative anxiety.

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ENT_BB CONNECTION
Vol 2| Issue 7| 2023

Assessment of coordinated multidisciplinary Obstructive Sleep Apnoea in Children with Down Syndrome

Introduction: Down syndrome (DS) is the most common causes of intellectual disability in childhood and it may lead to relevant medical comorbidities conditions that include, congenital heart defects, thyroid dysfunction, and sleep-disordered breathing[1]**.** As Children with DS have multiple risk factors for Obstructive Sleep Apnoea (OSA), as it causes obstruction of the upper airways, which causes a fragmentation of sleep and gas exchange abnormalities. OSA in children is associated with concentration deficit, reduced ability to learn and has been reported to correlate with lower cognitive function, developmental delay and school failure[2,3]. In typically developing children OSA is associated with impairments of executive function (EF), Domains of EF include planning, problem solving, working memory, attention, self-regulation and inhibition. EFs are predictive of later academic abilities, lifelong success, health, wealth and quality of life[4]. untreated OSA could be a risk factor for later life Alzheimer's disease so timely recognition and treatment of OSA in these children is an important goal for optimal cognitive functioning and quality of life[2]. The current study was aimed to assess a coordinated multidisciplinary approach to OSA in a cohort of children with DS.

Methods: Study includes a total of 48 DS children aged 4–12 years with confirmed diagnosis of DS by karyotype analysis were prospectively investigated with nasal endoscopy, orthodontic examination, and overnight polygraphy (PG). Mothers were instructed to fill the Italian Child Sleep Habits Questionnaire (CSHQ-IT). Questionnaire we used to evaluate DS children's and adolescents' sleep habits and disturbances and Children were grouped into weight categories based on age and sex-adjusted body mass index (BMI) percentiles according to Centres for Disease Control and Prevention (CDC) classification. By using a cardiorespiratory device Overnight Polygraphy was performed

Results: The study results show that mean age of DS children was 8 ± 2.5 years and mean BMI was 19.9 ± 3.7 kg/m2. In total of DS patients, 40% were overweight and 29% were obese, while the remaining 31% had normal weights. CSHQ-IT completed by the mothers of DS children with those of 48 mothers of children without DS show that total scores from DS and healthy children's mothers were significantly different. Except sleep onset delay scores were not different, while the remaining were significantly higher in the DS group than in the healthy children cohort.

No patients had previously undergone adenoidectomy or tonsillectomy. In total of 48 children, 34 (71%) and 47 (98%) successfully underwent ENT and orthodontic evaluation 85% of DS children had adenoid hypertrophy, with 14 (41%) and 15 (44%) cases showing grade II and III hypertrophy, respectively.

Eight DS children had both grade III adenoid hypertrophy and tonsil size ≥3Orthodontic. The most prevalent facial profile was orthognathic, while concave and convex profiles were present in 10 and 5 cases. Findings of PG suggests that the median total sleep time was 480 minutes. The median AHI was 2.2. According to AHI values, 67% of the patients had OSA, 20 had mild OSA, and 12 had moderate to severe OSA. The median of SpO2 mean was 96.3%; median ODI and T90 were 4 and 0.2%, respectively. As shown in Figure 2, the evaluation of oximetry indices showed that ODI was significantly higher in the OSA group than in the non-OSA group. The evaluation of oximetry indices showed that ODI was significantly higher in the OSA group than in the non-OSA group

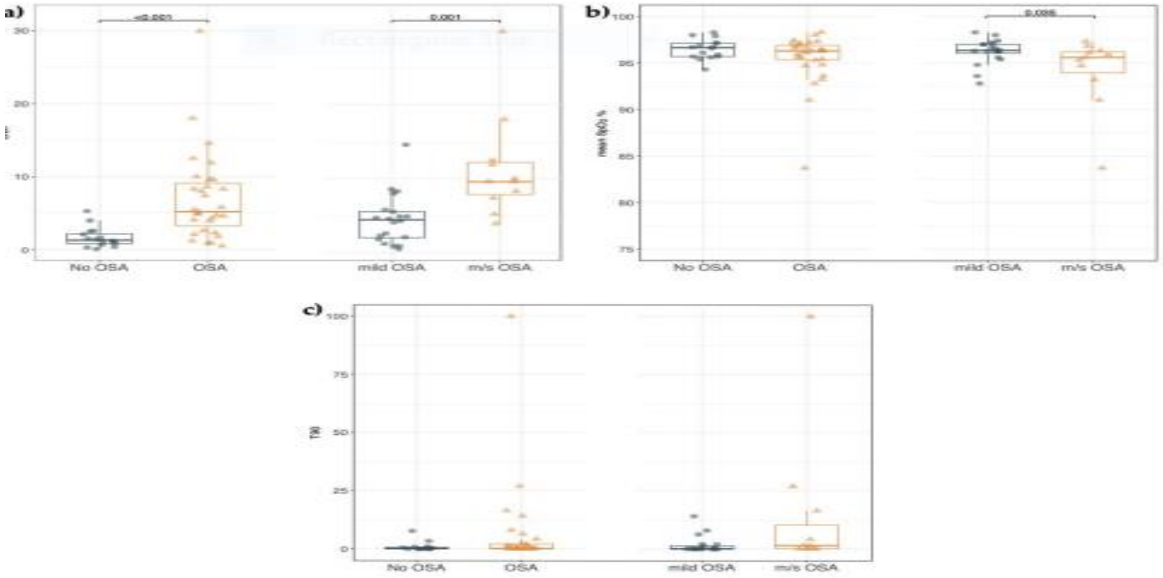

Figure 2 **Oximetry indices from nocturnal polygraphy in children with Down syndrome**

Conclusion: The current study a coordinated multidisciplinary approach with overnight Polygraphy is a valuable tool when developing diagnostic protocols for OSA in DS.

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Assessment of quality of life in elderly with hearing loss

Introduction: Hearing loss is a condition where people can't hear as they used to and Age-related hearing loss is caused by the cumulative damage to the ear over a lifetime[1]. Prevalence of HL continues to increase with age and it constitutes the third most prevalent chronic health condition in older adulthood, it may result in increased disability risk of incident morbidity, frailty and poorer self-rated health[2]. Only about 16% of all patients with a hearing impairment have been fitted with hearing aids. If untreated, impaired hearing can affect not just the daily life and the quality of life of the person affected, but possibly also the genesis and course of various diseases related to old age, so it is believed that non-otolaryngologists should become more aware of the importance of early diagnosis and treatment of presbycusis[3]. The aim of this study assess the consequences of hearing loss and the factors affecting the elderly's prejudices, expectations and experiences of a hearing aid.

Methods: A cohort longitudinal study where 43 patients were randomly selected from the geriatric patients. Patients of age >60 years old with primary complaint of hearing loss or difficulty in oral-aural communication were included in the study. Hearing thresholds were measured before and after hearing aid fitting. Assessment of psychological, social and vocational state by IOI-HA questionnaire was used. SPSS software was used to analyse the statistics.

Results: This study results show that in total of 43 patients 14% of the patients suffered from moderate hearing loss, 39.6% had moderately severe, 20% had severe hearing loss and 26.4% presented with the profound hearing loss with speech discrimination score 55.63%±14.64%. Moderate positive correlation was found between the severity of hearing loss and psychological, social and vocational status of the patient by 58.8%, 58.8% and 48.1% respectively.

Hearing threshold showed high significant improvement after the use of hearing aid. Functional and emotional Speech discrimination also showed significant improvement after hearing aid use. On trial to focus on factors affecting the hearing aid benefit age showed

moderate positive correlation; being younger for the first time increase their benefit of hearing aid use.

On assessment of personal outcome of the hearing aid using IOI-HA it resulted that improvement of audiological profile of the patient almost show better personal outcome

Most patients in the current study got the promising outcome from the hearing aid, going on depth this mean that the factors of IOI-HA questionnaire are nearly fulfilled.

Table: 1 Scores of psychological, social and vocational scores of IOI-HA

Variables	Mean ± SD	Min	Max
Psychological	34.06±12.3	17.0	44.0
Social	44.30±11.20	35.0	49.0
Vocational	28.44±11.76	27.0	36.0

Conclusion: The study concludes that daily life consequences of hearing loss and general life satisfaction are closely related. For presbycusis hearing aid is a beneficial rehabilitation method.

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ENT_BB CONNECTION
Vol 2| Issue 7| 2023

Giant hypopharyngeal fibro epithelial polyp: A Case Report

Introduction: Fibro epithelial polyps (FEPs) are rare disorder resulting from hyperplasia of fibrous connective tissue[1]. Mostly these are rare, benign and represent about 0.03% of all pharyngeal and esophageal neoplasms. The most common site at which these lesions are found include upper third of the oesophagus followed by the hypopharynx; in contrast, they are seldom found in the oropharynx. These exhibit great differences in size and may extend throughout the whole length of the oesophagus until they reach the gastric cavity[2]. Even though they are benign, they may be lethal due to either bleeding or asphyxiation if a large polyp is regurgitated. Patients commonly present with symptoms of dysphagia or hematemesis. Imaging plays a vital role in aiding diagnosis as well as providing important information for pre-operative planning, such as the location of the pedicle, the vascularity of the polyp and the tissue elements of the mass as they are not being well visualized on endoscopy[3]. The aim of current study was to present a rare case report of Giant hypopharyngeal fibro epithelial polyp which was successfully treated with surgery.

Case study:

A 56-year-old woman attended the emergency department with complaint of tissue mass was coming out of the mouth after severe vomiting. On examination reveals that the patient was in a state of extreme fear and confusion due to the view of the mass, but was hemodynamically stable and systemically well. Patient has a history of foreign body sensation in her throat with difficulty swallowing solid food two months ago and patient was a known case pf hypertension and on regular medication.

Flexible fibre optic laryngoscopy was performed, a giant pedunculated polyp with a thin stalk originating from the right pyriform sinus was noted. Polyp was extending from the pyriform sinus and protruding outside the mouth. The patient has forbidden previous surgeries in the oropharynx, hypopharynx, or upper aero digestive tract. Magnetic resonance imaging (MRI) revealed a giant mass arising from the right pyriform sinus with a thin stalk and extending out of the oral cavity as shown in figure 4. The mass was isointense in the T1-weighted images (T1WI) and hyper intense in the T2- weighted images.

The larynx was not compressed by the polyp, therefore, the decision was made to remove the polyp through endoscopic laryngeal surgery under general anaesthesia with endotracheal

intubation. Patient was moved to the operating room. Polyp stalk was coagulated and then resected using bipolar diathermy. A rigid pharyngoesophagoscopy was performed after resection that revealed complete resection of the mass.

On the next postoperative day, the patient was placed on a semi liquid diet and discharged. A week later, the patient was re-evaluated by flexible fibre optic laryngoscopy and all findings were within normal limits.

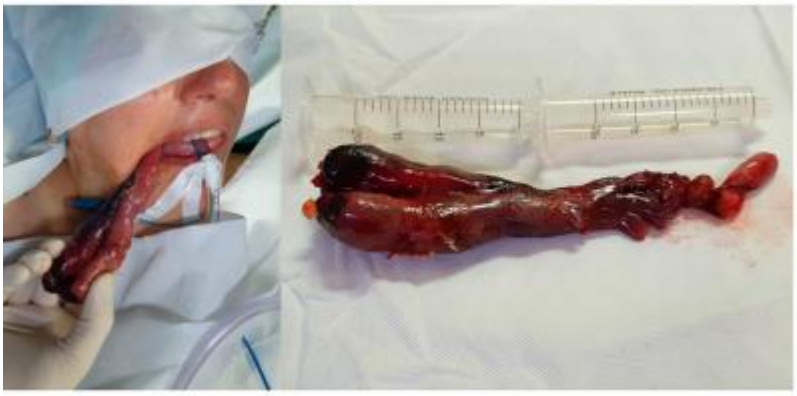

Figure 1: **Intraoperative photos**

Conclusion: The current study concludes that when complaints such as dysphagia or airway compromise are found, doctors should keep these cases on the list of differential diagnoses. Surgical excision is the treatment of choice and should be performed as soon as possible to avoid sudden airway obstruction.

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References:

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