



ENT NEWSBUZZ

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Dear Doctor,

Greetings from Micro Labs limited. We are happy to bring you “ENT NEWSBUZZ” which contains latest and interesting news.

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Best Regards,

Medical Team, Micro Labs Ltd



Assessment of correlation between depression, anxiety, and tinnitus handicap in patients with primary tinnitus

Introduction: Sound that can be heard without the presence of an external sound stimulus is termed as Tinnitus, affecting the 10-15% of general population¹. ringing, buzzing, chirping, roaring, and/or a large variety of other types of sounds were heard usually by people suffering with tinnitus. Tinnitus usually associated with damage to VIIIth cranial nerve and it may shift with time towards the brainstem and cortex region, so it defines that tinnitus may affect the central nervous system. Various studies highlights that 77% of the tinnitus population may present with psychiatric comorbidities. Most common psychiatric comorbidities include anxiety and depression². Tinnitus strongly influences mental health, Anxiety and depression are comorbid with tinnitus, with a prevalence of 15.2%–28.7% and 6.7%–25.6%, respectively. Psychological distress among patients with tinnitus warrants the proper diagnosis by clinicians. The widely used tool for reliable assessment tools of tinnitus severity is Tinnitus Handicap Inventory (THI)³. Anxiety and depression is going to give a negative impact on quality of life¹. The present study aims to assess the correlation between depression, anxiety, and tinnitus in patients with primary tinnitus.

Methods: A questionnaire based study was conducted on 102 patients. All the participants have completed the Tinnitus Handicap Inventory (THI), Beck Depression Inventory (BDI), and Symptom, Checklist-90-Revised (SCL-90-R). Correlations were analysed using Pearson's and Spearman's tests. Logistic regression analysis was performed. Pure-tone audiometry, tinnitometry, tympanometry, and brainstem-evoked response audiometry to exclude retro cochlear lesions were used to assess the hearing status of patients. Brain MRI was also performed for all subjects.

Results: This study results reveal higher proportion of middle-aged women and THI scores show that nearly 26% of the patients reported a normal tinnitus handicap (i.e., < 18 total points, around three-quarters of the participants indicated a worsening handicap, indicating a significant tinnitus ratio affecting their day-to-day functioning. So mild handicap was the most common category, followed by severe and catastrophic.

As shown in the figure 1, THI and depression scores revealed the strongest statistically significant correlation, comparing the THI sub scores, each item was significantly correlated with the BDI scores, with the strongest correlation in the case of functional and emotional



scores. Functional and emotional aspects of the tinnitus handicap influence the depressive symptoms.

Correlation observed between anxiety and total THI score was significant. effects of emotional functioning on the appearance of psychiatric symptoms. The correlation between tinnitus handicap and psychiatric comorbidities indicates the importance of psychological factors in managing tinnitus. Kaplan–Meier analyse shows an association between depressive symptoms and tinnitus handicap, can be explained by worsening handicap results in the appearance of depressive symptoms

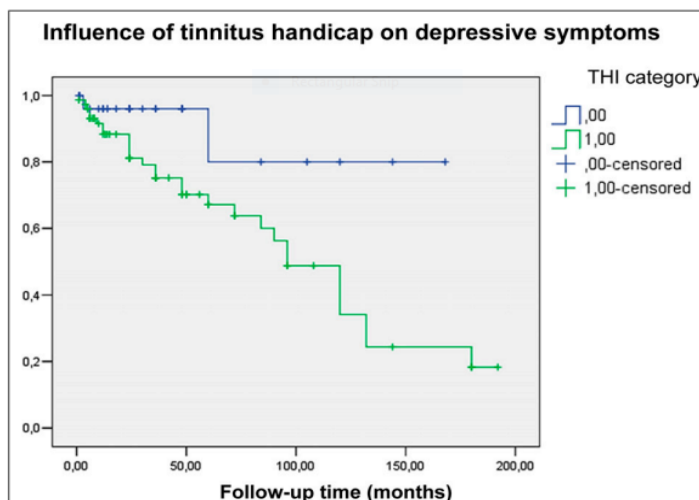


Figure 1 Kaplan–Meier curve assessing the results of the BDI and THI questionnaires

Conclusion: The study concludes that Tinnitus handicap has a more significant effect on depression scores and correlation between tinnitus handicap and psychiatric comorbidities indicates the importance of psychological factors in tinnitus management.

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A Case Control study on assessing the impact of delayed oral feeding pharyngocutaneous fistula formation after open surgical treatment of primary hypopharyngeal

Introduction: Pharyngocutaneous fistula (PCF) is a common complication that occurs after surgical treatment of laryngeal cancer or hypopharyngeal cancer (HPC), if untreated may leads to fatal complications such as carotid artery rupture and sepsis¹. Incidence may vary from 2% to more than 35%, this condition usually increases hospitalization time and expense, delays initiation of postoperative radiotherapy (RT) where indicated, and affects a patient's psychological well-being². Many factors have been indicated as predisposing to fistula formation⁵⁻⁸: preoperative radiotherapy, surgical technique, concurrent neck dissection, suture material used for pharyngeal reconstruction, surgeon's ability, tumour stage, preoperative tracheostomy, early oral feeding, preoperative and postoperative haemoglobin levels, presence of systemic diseases, and nutritional status³. The two valuable outcomes for the patient include oral feeding and voice rehabilitation, both could be disturbed by occurrence of pharyngocutaneous fistula. Oral feeding usually starts by the seventh to tenth day postoperative to allow adequate time for pharyngeal closure as believed by many surgeons for decades⁴. The aim of current study to assess the impact of a postoperative protocol of restarting oral intake on PCF formation after open surgical treatment of primary HPC, and its impact on overall survival (OS) and swallowing function.

Methods: A prospective observational study was conducted on 42 patients who received open surgical treatment for primary HPC. This cohort included two groups: patients who restarted oral intake on the 10th postoperative day considered as Group 1, and those who started on the 20th considered as Group 2. For comparing qualitative data among the groups Chi-square test and Fisher's exact chi-squared test were used.

Results: This study results show that study participants are mostly in the age group between 51 and 78 years (median age of 59). Among them, 81.0% were smokers and 59.5% were alcohol drinkers. Total 27 patients were included in Group 1 and 15 patients in Group 2. There were 7 (25.9%) PCF cases in Group 1 and 0 (0%) PCF cases in Group 2 ($P = 0.038$) and all 7 patients were at stage 4 disease.



The median and average duration of PCF healing were 40 and 66 days, respectively. As Shown in the figure 2, two-year OS of all 42 patients was 75.6%; 65.8% and 93.3% for Group 1 and 2, respectively ($P = 0.07$).

Laryngeal preservation was achieved in 25 (59.5%) patients and in nearly 88% of cohorts have successful decannulation. The swallowing function was satisfactory (FOSS Grades 0–III) for 19 (70.4%) patients in Group 1 and 15 (100%) patients in Group 2 ($P = 0.035$). Among the 8 patients with unsatisfactory swallowing (FOSS Grades IV–V), 4 (50.0%) experienced PCF, while 3 (8.8%) patients amongst the 34 patients with satisfactory swallowing endured PCF. This finding suggested that PCF is an important impact factor for swallowing function outcome, as has been repeatedly reported in the literature.

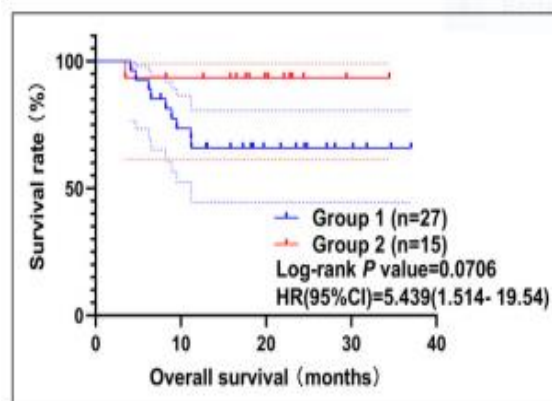


Figure 2 Overall survival (OS) of this cohort of patients

Conclusion: The study concludes that delayed oral feeding significantly reduces PCF after open surgical treatment of primary HPC, and greatly improves swallowing function outcome.

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Assessing the severity of chronic rhinosinusitis symptoms before versus during the COVID-19 pandemic

Introduction: Chronic rhinosinusitis (CRS) is a condition characterized by persistent inflammation of the nasal and paranasal sinus mucosa with symptoms including nasal blockage, discharge, facial pressure and reduction or loss of smell¹. Worldwide, nearly 5%-12% of the general population and 3%-6% of the patients in clinical trials are affected by CRS. It leads to considerable costs for health systems and economies². Global pandemic of coronavirus began in December 2019, which have showed high impact on upper airways³. With an intention of avoiding COVID exposures Masking, social distancing, and staying indoors measures have been taken, but one might also expect for them to have the effect of minimizing exposure to environmental triggers for patients with CRS¹. The present study aims to compare the severity of CRS symptoms in relation to the COVID-19 pandemic, a time when many people undertook measures such as masking and social distancing, and a time when exposure to other upper respiratory infections was relatively low.

Methods: A retrospective study patients aged 18–89 years old with an existing or new diagnosis of CRS The registry collects survey data from participants at the time of enrolment and again at approximately 3 months, 6 months, 46 weeks, and 1 year after the date of enrolment. After 1 year from enrolment, surveys are re-administered annually. Surveys from participants undergoing either medical or surgical management for their CRS symptoms were included. All analyses were conducted in SAS version 9.4.

Results: In a total of 598 participants, 356 participants with 1-year follow up data, 311 with 2-year follow up data, 238 with 3-year follow up data, 196 with 4-year follow up data, and 127 with 5-year follow up data was considered. A total of 127 patients received medical therapy, while 471 patients underwent surgery.

The model-estimated nasal score shows subjects enrolled before pandemic tended to have higher nasal score at year 1 and year 2, In examining the model-estimated ear and facial score, subjects enrolled before pandemic tended to have higher ear and facial score at year 1, higher sleep score at year 1, higher emotion score at year 1. As shown in the figure 3 time of enrollment, total SNOT-22 scores were significantly higher during the pandemic than before the pandemic. The sleep, function, and emotion domains individually patients presented with more severe symptoms in these categories during COVID



compared with before COVID. In contrast, there was no difference in the severity of nasal symptoms or in the severity of ear/facial symptoms before versus during the pandemic.

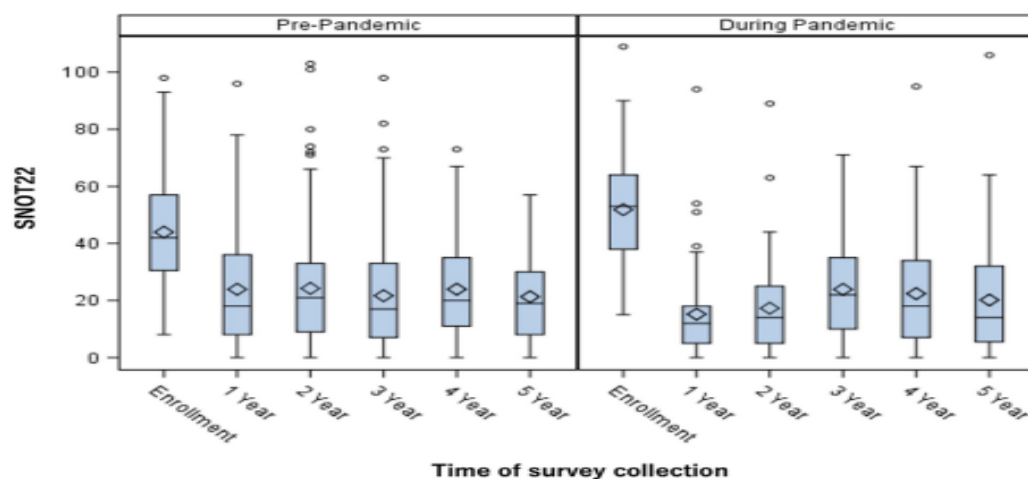


Figure 3 Model-estimated SNOT22 at enrollment and follow-up time points pre-pandemic versus during pandemic

Conclusion: The study concludes that a clinically significant contribution from the COVID-19 pandemic to patients' symptom severity, which we speculate might be due to widespread behaviour changes such as masking, social distancing, and staying indoors.

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**A Rare Diagnosis of Meier-Gorlin Syndrome
Accompanied by Neonatal Seizure, Mental Retardation,
and Attention Deficit Hyperactivity Disorder**

Introduction: Meier-Gorlin syndrome (MGS) or Ear patella short stature syndrome (EPS) is a rare disorder characterised by proportionate growth retardation was first reported by Meier in 1959 and Gorlin in 1975¹. It causes primordial proportional dwarfism, microtia, the absence of or hypoplastic patellae and other skeletal anomalies. Estimated prevalence less than 1–9 cases per 1,000,000 people; however, the true prevalence is difficult to ascertain because of the phenotypic heterogeneity. The diagnosis of MGS is complicated by high clinical variability and considerable genetic heterogeneity without a clear genotype–phenotype correlation². In total eight forms of Meier-Gorlin syndrome, each of them with a slightly different phenotype, caused by mutations of different genes that are involved in DNA replication³. This case report aimed to present an 11-year-old girl with the classic triad of MGS and associated anomalies.

Case Report

A 11-year-old girl Short stature and developmental delay, she was the first child mother's previous pregnancy was terminated at 6 months of gestation due to severe hydrocephalus, myelomeningocele, and lumbosacral spinabifida in prenatal sonography. She was born at 32 weeks of gestation by caesarean section due to severe symmetric intrauterine growth retardation and moderated to severe oligohydramnios. She experienced a subtle seizure on the twentieth day for 1 minute, including eyelid blinking, staring, and sucking, accompanied by tachycardia and reduction of oxygen saturation in pulse oximetry and treated with intravenous phenobarbital.

High level of TSH hormone in premature neonatal screening was noted, levothyroxine was started and continuing till date. With respect to microcephaly and abnormal facies, karyotype testing was done and revealed 23 pairs of chromosomes, compatible with normal female (46 XX). During her first years of life, she had an impaired growth hormone (GH) stimulation test and low serum level of insulin growth factor 1 (IGF-1) along with poor growth in anthropometric indices. So, endocrinologist prescribed her GH therapy, at the age of 18 months and continued for 2 years.



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Symptoms of inattention, hyperactivity, and impulsivity, undergone treatment for risperidone from the age of 5 with the diagnosis of attention deficit hyperactivity disorder (ADHD). She has not finished the first grade, as her intelligent quotient is low.

Facial characteristics included bilateral microtia, large convex nose, microcephaly, full lips, and micrognathia were seen as shown in figure 4. All laboratory tests showed normal results except for G6PDd (Glucose 6 phosphatase dehydrogenase deficiency) and high TSH level compatible with hypothyroidism. Audiometry at 6 months of age revealed some degrees of left ear conductive hearing loss but at the age of 11 years, audiometry revealed bilateral conductive hearing loss.



Figure 4 microcephaly, large convex nose, microcephaly, full lips, and micrognathia

Conclusion: The current study reported a case MGS accompanied by a neonatal seizure, intelligential disorder, and ADHD and it concludes that presence of microtia, growth retardation, and patellar aplasia/hypoplasia together should raise diagnostic suspicion of MGS syndrome

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