SP-09

Maxillofacial Perspective for the Management of Obstructive Sleep Apnoea in Paediatric Patients with Craniomaxillofacial Syndromes

Firdaus Hariri, MDS (OMFS)

Department of Oral and Maxillofacial Clinical Sciences, University of Malaya, Kuala Lumpur, Malaysia

ABSTRACT

Introduction: Obstructive sleep apnoea is one of the major functional discrepancies secondary to structural abnormality among paediatric patients with craniomaxillofacial syndromes. The airway obliteration can be due to severe midface hypoplasia such as in Crouzon or Apert syndromes or secondary to severe micrognathia in Nager or Treacher Collins syndromes. **Methods:** This presentation highlights the maxillofacial interventions in various paediatric craniomaxillofacial syndromes presenting with obstructive sleep apnoea. **Results:** The primary aim of maxillofacial intervention for the treatment of OSA is to achieve adequate airway opening via midface advancement or mandibular lengthening which can be achieved with traditional surgical procedures such as Le Fort osteotomy or mandibular sagittal split osteotomy, respectively. The advancement of tissue engineering in medical field has made distraction osteogenesis applicable in craniomaxillofacial diseases. This technique provides superior bony lengthening through controlled traction and simultaneously expands the surrounding soft tissues thus minimizing relapse. Nevertheless, maxillofacial interventions would involve comprehensive planning and appropriate case assessment tailored to each patient as these procedures carry the risk of serious morbidities and require technical precision. Apart from reducing morbidity and optimizing the surgical outcomes, the integration of technology advancement in complex maxillofacial interventions such as tissue engineering and 3D printing has significantly contributed to the promising success in this reconstructive field. **Conclusion:** Various maxillofacial interventions aimed at midface advancement or/ and mandibular lengthening play a vital role in the multidisciplinary management of paediatric craniomaxillofacial syndromes presenting with obstructive sleep apnoea.

SP-10

Management of obstructive sleep apnea in children

Goh Bee See, MS (ORL-HNS), Farah Liana Lokman, MS (ORL-HNS)

Department of Otolaryngology Head Neck Surgery, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

ABSTRACT

Introduction: Treatment approaches to paediatric obstructive sleep apnea (OSA) continue to evolve as the underlying causes are complex. Adenotonsillectomy has been recommended as the first line of treatment in majority of the cases. However, there are cases where residual or persistent OSA may occur due to severe OSA, obese, those with concurrent asthma or allergic rhinitis (AR), or children with predisposing oropharyngeal or maxillomandibular factors. The co-existence of AR has long been considered as a risk factor for OSA. Other important factor which is obesity is associated with an increase in the prevalence and the severity of OSA. It may play an important role in the persistence and aggravation of OSA over time. **Methods:** A retrospective study on paediatric adenotonsillectomy was carried out from November 2011 until October 2016 at UKM Medical Centre. Medical record of patients aged 2 to 12 years old who underwent adenotonsillectomy was retrieved for data collection. **Results:** Recurrent tonsillitis either with or without obstructive symptoms were the main of indication (60%), followed by SDB (29%) and OSA (7%) for adenotonsillectomy. At six months post adenotonsillectomy, all patient no longer had recurrent sore throat but five patients still has snoring (3.5%) and twenty-two complained of partial snoring (15.4%). Allergic rhinitis was found to be the commonest co-morbidity (40%) in cases with snoring and SDB. Almost 10 % had con-comitant medical problem including asthma. Another study carried out in 2013 on quality of life amongst paediatric patients with OSA who underwent adenotonsillectomy at our center reported that those with allergic rhinitis had lesser improvement on quality of life score post-operatively followed by obesity. **Conclusion:** There is no single approach will fit all patients. Those with residual OSA need to be pro-actively identified and managed comprehensively using individualized strategies that address the possible underlying risk factors.