OUR EXPERIENCE OF A MULTIDISCIPLINARY APPROACH IN MANAGING PATIENTS WITH CRANIOSYNOSTOSIS:
AN OTOLARYNGOLOGIST PERSPECTIVE

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Introduction
Our craniosynostosis multidisciplinary team (MDT) clinic began in 2014 for the comprehensive management of these children with the involvement of various specialties (otolaryngology, audiology, maxillofacial surgery, neurosurgery, orthopaedic surgery, ophthalmology, genetics, respiratory, anaesthesiology & dental) to achieve an optimal outcome with minimal morbidity (Figure 1).

Objectives
The objective was to investigate the frequency of otolaryngology associated problems related to craniosynostosis as well as the frequency and nature of surgical interventions required.

Method
This is a retrospective review of patients with craniosynostosis between January 2014 and December 2017 in University of Malaya Medical Center.

Results
A total of 30 patients attended the MDT clinic over a period of 3 years. Among them, 21 patients (70%) had syndromic craniosynostosis (7 Crouzon syndrome, 9 Apert syndrome, 4 Pfeiffer syndrome and 1 craniofrontonasal syndrome). Varying degree of nasal stenosis was present among syndromic patients with 8 patients (26.7%) who required nasal dilatation and nasopharyngeal airway (NPA) insertion and five patients (16.7%) had undergone tracheostomy for multilevel airway pathology. Within the non-syndromic group, no patient had nasal stenosis. Obstructive sleep apnea was identified in 46.7% (14/30) of syndromic craniosynostosis patients compared to only 3.3% among non-syndromic (1/30) patients. Hearing impairment was diagnosed in 46.7% (14/30) of syndromic craniosynostosis patients.

Future study: Volumetric airway analysis in syndromic craniosynostosis pre- and post-distraction osteogenesis (Figure 2).

Conclusion
Craniosynostosis is a complex disorder especially among syndromic patients. The management of craniosynostosis requires a coordinated effort from a multidisciplinary team. Otolaryngologists are essential members to assess and treat airway pathologies.