# Challenges in the management of antrochoanal polyp in children

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#### **ABSTRACT**

Introduction: Antrochoanal polyp (ACP) is an inflammatory polyp, predominantly unilateral and occurs commonly in children and young adults. The incidence in preschool children is very low. Methods: ACP in children less than 13 years old was retrospectively reviewed at a tertiary hospital, Universiti Kebangsaan Malaysia Medical Centre (UKMMC) from 2000 until 2016. Results: There was a total of four cases; three boys and a girl. Of the three boys, two were six, and one was 12 years old, and the girl was eight years old at the time of surgery. All of them presented with gradual unilateral nasal obstruction associated with symptoms of rhinosinusitis and snoring. Nasal endoscopic examination revealed a pearly greyish mass in the nasal cavity extending into the nasopharynx. One patient underwent two surgeries at other hospital prior to the referral to UKMMC. Computed tomography scan of paranasal sinuses showed unilateral nasal cavity and maxillary sinus opacity. All patients underwent middle meatal antrostomy and removal of polyp with microdebrider and the stalk was cauterized with a bipolar diathermy. However, two of the younger children had recurrence at four months and eight months later. Revision surgery was performed with meticulous removal of polyp and diathermised at the stalk area. Follow up after two years did not reveal any further recurrence in one of them. Discussion: Surgery is the only option for treatment of ACP but most surgeons might opt for limited nasal surgery in the management of ACP in children and hence carry the risk of recurrence. Endoscopic nasal surgery in younger children is technically challenged as the surgical field is very limited and meticulous removal is required to minimise complications. The stalk of the polyp should be cautherised to prevent recurrence of disease. Post-operative care is important to enhance the healing process and to prevent the infection.

# Sound frequency spectra in relation to site of obstruction in sleep endoscopy

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### **ABSTRACT**

Identifying the site and pattern of upper airway obstruction or changes during sleep is important in guiding treatment approaches in obstructive sleep apnoea (OSA) or sleep disordered breathing (SDB). Although Müller manoeuvre has been routinely performed for the above purposes, the increased muscle tone during wakefulness may not depict the actual event. On the other hand, drug induced sleep endoscopy (DISE) may give a better evaluation of site of obstruction in the sleep state. Several studies have shown that performing DISE may help in tailoring therapy individually, leading to an increased surgical success rate. Therefore, DISE is a pertinent assessment tool in managing OSA patients. However, due to high cost, long waiting list, semi-invasive nature of procedure and limited trained personnel, the feasibility of performing DISE in every patient is less likely. Hence, it would be extremely useful if a polysomnography (PSG) can indicate the site of obstruction in OSA patients. Snoring sounds may have specific acoustic characteristics, depending on the site and mechanism of obstructions and vibrations. Here, the preliminary results of the sound frequency spectra of snores in relation to the site of obstruction in DISE of five patients (three females, two male) with mild to severe OSA are presented.