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An unusual cause of otalgia in a child – A case report

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ABSTRACT

Otalgia is a common complaint of pediatric patients in Otorhinolaryngological practice. Rhinogenic contact point otalgia (RCPO) is a newer term in medicine. This is due to intranasal mucosal contact points which formed in nasal septal deviation, septal spur, concha bullosa, etc. causing referred Otalgia without any signs of inflammation. It is diagnosed after exclusion of other causes for ear pain after different investigation tools. Here, we reported a case 12-year boy presented with intractable otalgia induced by nasal septal spur. Otoendoscopy revealed normal tympanic membrane whereas diagnostic nasal endoscopy showed a sharp spur touching the left inferior turbinate in left nostril. Medical treatment for migraine failed to relieve the symptoms. After surgical removal of septal spur, patient experienced a significant relief of symptoms.

Introduction

Otalgia is a common clinical entity of childhood in Otolaryngological practice and is nearly universal in the course of everyone's life. It is a distressing problem for child as well as parents. Pressure of two opposing mucosa in the nasal cavity without evidence of inflammation can be a cause of headache or facial pain, called as rhinogenic contact point headache. Rhinogenic contact point headache (RCPH) is a referred pain due to intranasal contact between the nasal septum and lateral nasal wall. Headache and facial pain can occur due to intranasal mucosal contact points such as septal deviation, septal spur, large ethmoidal bulla and concha bullosa of middle turbinate. Intranasal contact points denotes to a contact between two opposing intranasal mucosal surfaces. Intranasal contact points are present in about 4% of noses [1]. If there are no features of inflammation in sinonasal area nor other etiology for headache, it should be in mind to assess the intranasal contact point headache. Otalgia due to rhinogenic contact point by intranasal mucosa is called as rhinogenic contact point Otalgia (RCPO) [2]. Diagnosis of RCPO needs a team approach. In our case, a 12 year old boy who presented with intermittent and severe otalgia, which was supposed to be induced by sharp septal spur touching to the inferior turbinate. After surgical correction of nasal septal spur, the otalgia has been alleviated. Nose has a diverse anatomical variation like septal spur, septal deviations, concha bullosa

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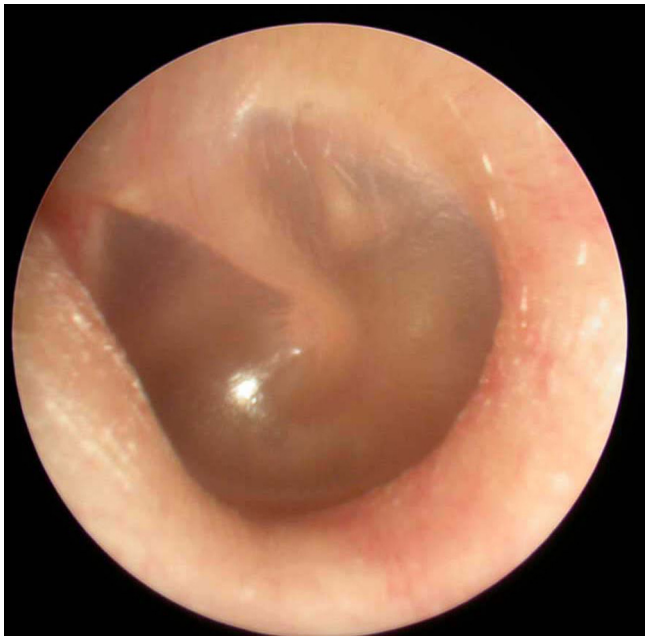

Fig. 1 – Otoendoscopy showing normal left tympanic membrane

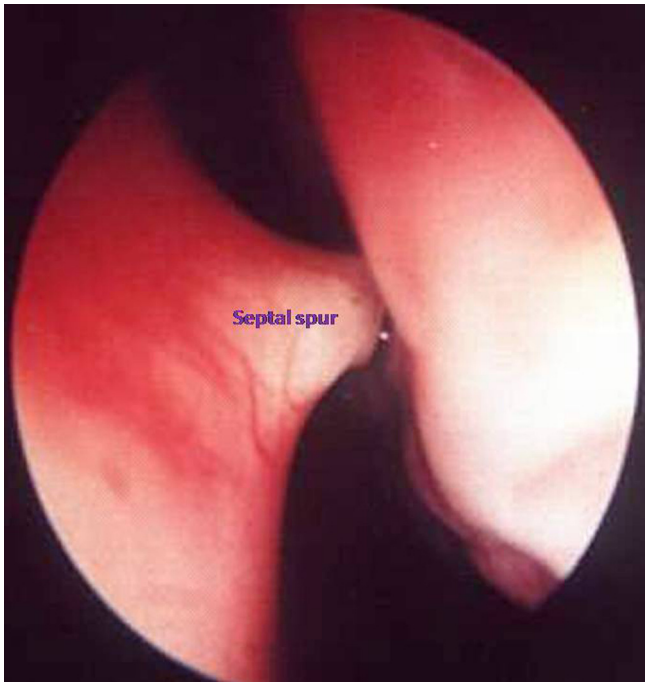

Fig. 2 – Diagnostic nasal endoscopy showing a sharp spur in left nostril touching to the inferior turbinate

and large ethmoidal bulla, etc. Relation between these anatomical variations and rhinogenic contact point otalgia was confirmed in septal spur. So above lesions should not be ignored from mind during evaluation of otalgia and their respective treatment helps to relief the symptoms.

Case report

A 12-year-old boy attended outpatient Department of Otorhinolaryngology with complaints of severe left side ear pain since 2 years. The characteristic ear pain or otalgia was deep and sharp shooting in character. The otalgia was intermittent and occasionally lasts for several hours. The pain often affecting left ear and sometimes radiating to the left side forehead area. He had no history of cold and fever. He was treated for migraine at outside hospital, but not relieved. He showed normal neurological and ophthalmological examinations. The otoendoscopic examination revealed bilateral normal external auditory canal and tympanic membrane (Fig. 1). Diagnostic nasal endoscopy was done by using 0° rigid nasal endoscope which showed a sharp spur from left side nasal septum touching to the inferior turbinate (Fig. 2). During diagnostic nasal endoscopy, there was no purulent discharge and no sign of inflammation seen. Computed tomography (CT) scan confirmed a sharp spur in left side of septum which has a distinct contact point between the nasal septum and inferior turbinate (Fig. 3). 4% xylocaine with adrenaline soaked cotton pledget was kept at mucosal contact point of septal spur and after around 3 min patient felt an improvement of otalgia. Then patient was advised for removal of mucosal contact point by spurectomy/septoplasty. Patient completely recovered after 2 weeks of

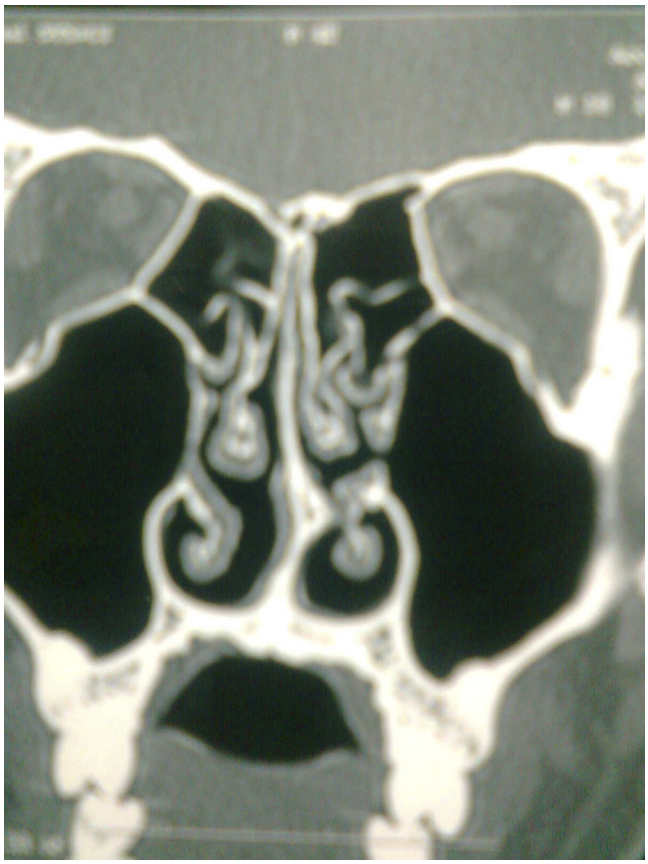

Fig. 3 – CT scan of the paranasal sinus showing a sharp spur in left nostril touching to the left inferior turbinate