ADENOID HYPERTROPHY: AN UNUSUAL CAUSE OF NASAL OBSTRUCTION IN ADULTS

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INTRODUCTION

Adenoid is collection of lymphoid tissue in the postero-superior wall of the nasopharynx. The term Adenoid hypertrophy indicates non-physiological enlargement of the nasopharyngeal tonsils [1]. This adenoid hypertrophy could be missed because of difficulty of examination of the nasopharynx. We present a rare case of an adult of 22 years of age presented with severe bilateral nasal obstruction due to adenoid hypertrophy.

CASE REPORT

A 22 years old young soldier presented with the history of bilateral nasal obstruction for the last 8 months which initially started on the right side and was followed by on the left side two weeks later. The obstruction was intermittent initially and later after about 4 weeks it became permanent and was not relieved by systemic or local nasal decongestants. He also gave history of oral breathing and dryness of the oral cavity. The speech was hyponasal. There was no history of snoring, deafness, epistaxis, rhinorrhoea or ear discharge. Examination revealed complete nasal obstruction on both sides which was not relieved by local xylometazoline spray. There was collection of excessive nasal secretions in both nasal cavities and mild hypertrophy of inferior turbinates bilaterally. Examination with the help of endoscope revealed a mass occupying the nasopharynx and completely obstructing both posterior choanae. The mucosa overlying the growth was intact and the colour was normal. Computerized tomogram (CT) Scan revealed growth completely occupying the nasopharynx (Figure). First biopsy was taken in outdoor setting in local anaesthesia which revealed normal nasopharyngeal tissue covered by pseudo stratified columnar epithelium. Considering it to be a superficial biopsy another deep biopsy was taken under general anaesthesia but histopathology report revealed same findings. The diagnosis of adenoid hypertrophy was established and adenoidectomy and partial bilateral inferior turbinectomy done. Histopathology of the removed nasopharyngeal mass confirmed it to be adenoid tissue. Patient was relieved of the symptoms after surgery.

DISCUSSION

Adenoid is the condensation of lymphoid tissue at the back of nose or on the postrosuperior wall of nasopharynx. Santorini described the nasopharyngeal lymphoid aggregate or 'Lushka's tonsil' in 1724. Wilhelm coined the term adenoid to apply to what he described as 'nasopharyngeal vegetations' in 1870. Adenoid is part of Waldyer's Ring. Adenoid appears to have an important role in the development of an 'immunological memory' in younger children [2]. Removal of the adenoid at a young age may be immunologically undesirable [3] but there appears to be no decrease in IgE levels after adenoidectomy [4]. Adenoid hypertrophy, physiologically in children between the age of six to ten years, then atrophy at the age of 16 years [5]. Age related changes assessed by CT, MRI and positron emission scan (PET) also demonstrated a significant decrease in the size of adenoids with aging. Although adenoid tissue undergoes regression toward the adolescent period [6] but Adenoid hypertrophy is also seen in the normal adult population [7]. Adenoid enlargement is uncommon in adults and because examination of the nasopharynx by indirect posterior rhinoscopy is inadequate, many cases of enlarged adenoid in adults are misdiagnosed and accordingly maltreated [8].

Adenoidectomy is usually performed under general anaesthesia using adenotomes, curettes and suction diathermy with or without the help of nasal endoscopes.

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Figure: CT Scan shows growth occupying the naospharynx.

Histopathological features of adenoidal lymphoid tissue are dissimilar in the two groups: numerous lymph follicles with prominent germinal centres is the chief finding in childhood adenoids, whereas adult adenoids show chronic inflammatory cell infiltration and secondary changes [5].

Although the cause of adenoid hypertrophy is not exactly known but certain reasons have been proposed. Presence of lymphoid hyperplasia in the adult nasopharynx, including the persistence of childhood adenoids is associated with chronic inflammation [8]. Regressed adenoidal tissue may re-proliferate in response to infections and irritants [9]. Finkelstein et al reported the presence of obstructive adenoids in 30% of heavy smokers [10] but in another study percentage of smokers was not significantly higher than in males of the same age [11]. Adenoid Hypertrophy may be caused by viruses in adults with compromised immunity, especially those receiving organ transplants and those with human immunodeficiency virus (HIV), is a well known phenomenon (14France AJ). In the patients of Adenoid hypertrophy the incidence of allergic rhinitis in the adults and children was higher [10] but in another study no association was found [12].

There are various clinical features associated with adenoid hypertrophy. All patients have nasal obstruction [8, 9] which may result in oral breathing, recurrent nasal infection and hyponasal speech. Higher percentage of children with Adenoid Hypertrophy were reported to suffer from snoring compared with adults [5].

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