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Adenoid Hypertrophy in Adults: Report of Two Cases

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Abstract

Adenoid hypertrophy is rare in adults. Most are seen in children as a cause of worrisome snoring and breathlessness during sleep. We report two cases of adenoid hypertrophy in male adults with similar presentations of nasal obstruction, causing snoring and breathlessness. In both patients, the diagnosis of adenoid hypertrophy was made by plain radiography of the postnasal space. Adenoidectomy done in these patients improved their symptoms remarkably. Thus adenoid hypertrophy should be considered as one of the causes of nasal obstruction in adults.

Introduction

The adenoid and tonsils are lymphoid tissues. The adenoid occupies the posterior surface of the naso-pharynx and the tonsils are found in the oropharynx. Both constitute the parts of a larger collection of lymphoid tissues known as theWaldeyer's ring which is a ring of lymphoid tissue at the entrance to the aero-digestive tract[1].

Physiological enlargement of adenoid in children occurs between the ages of 6-10years, atrophies at the age of 16years and completely disappears by 20years of age[2]

Isolated adenoidal hypertrophy is usually due either to physiological hypertrophy or chronic viral nasopharyngitis causing nasal airway obstruction.This could lead, in some children, to chronic rhinorhea ,mouth breathing ,snoring during sleep, dental abnormalities making the face elongated (adenoid facie),and recurrent otitis media with effussion. Noonan described a syndrome of pulmonary hypertention, cor pulmonale and congestive cardiac failure due to chronic hypoxia in children with hyperplasia of the Walderyers ring. In chronic infection of the naso-pharynx in children, adenoid hypertrophy could persist into adulthood. In adults adenoid hypertrophy is uncommon and examination of naso-pharynx by posterior rhinoscopy is inadequate. Thus many cases of adenoid hypertrophy were misdiagnosed and accordingly maltreated [3]. However with the advent of nasal endoscopes and improved imaging modalities ,such as CT scan, adenoid tissues are also commonly found in adults[4].

Adequate treatment of adenoid hypertrophy involves some form of surgical technique. The traditional technique, which is performed in our center, is a blind procedure done under the view of laryngeal mirror using an adenoid currette or adenotome to remove all adenoid tissue . The disadvantages of the traditional method include inadequate reduction of hypertrophic adenoid tissue

(especially in situations of involvement of the intranasal region, nasopharyngeal roof, peritubal and retrotubal (pharyngeal recess) region) [3-6] and bleeding. Over the past decades, the methods of adenoidectomy have changed following the introduction of endoscopes and other powerful instruments – such as micro-debrider and coblation.

More recently a new low thermal-injury electrosurgical device, the pulsed electron avalanche knife (PEAK), which is capable of the simultaneous division of tissue and coagulation of blood vessels has been widely used in ear, nose and throat (ENT) procedures such as tonsillectomy and adenoidectomy. .

We managed satisfactorily, two cases of adenoid hypertrophy in adult males with similar presentation of worrisome snoring from nasal obstruction of variable durations.

Case 1

A 21 year old male undergraduate presented to ENT clinic with a referral from a peripheral hospital and complained of recurrent nasal obstruction with snoring and mouth breathing of six years duration. For the above symptoms he had taken several antibiotics and nasal decongestants with transient relief. Clinical examination revealed a healthy looking young man with hyponasal speech and stertorous breathing. He had prominent tonsils. Post nasal examination was not tolerated. There was no abnormal finding on otological examination. Plain radiography of the nasopharynx revealed a soft tissue shadow occluding the nasopharyngeal airway in keeping with obstructive adenoid hypertrophy.(fig 1). Patient was worked up for adenoidectomy.The complete blood count including the platelet count was normal. The chest X-ray and the electro-cardoigram(ECG) were also normal. Under general anesthesia, endotracheal intubation done and oral pharyngeal pack inserted.The neck was extended with sandbags under the shoulders. Mouth opened with Boyle Davis mouth guage with appropriate tongue blade. Nasopharynx was exposed by traction with Foley's catheter. With the aid of adenoid curette, adenoid tissue was removed. Haemostasis was achieved by packing with gauze. Reversal of anaesthesia was done. Specimen sent for histology revealed reactive lymphoid hyperplasia.His postoperative course was uneventful and he was discharged on the third day post op. Adenoidectomy done resulted in resolution of symptoms. Patient was asymptomatic at six months follow up.

Fig. 1: The arrow showed soft tissue shadow occluding the nasopharyngeal airway

Case 2

A 37 year old male banker presented to us with a complaint of recurrent nasal obstruction and snoring of about 10years. He was a heavy smoker and on treatment for allergic sinusitis. Examination showed enlarged turbinate bilaterally. Tonsils were not enlarged. Otoscopy revealed normal findings. A soft tissue shadow occluding the nasopharyngeal airway was found in plain radiograph of the nasopharynx.(fig II). Modern imaging

technique (CT) was not done because it was not available in our center. Adenoidectomy was done on the patient as described in case one above. He recovered well and was discharged on the third day and has remained well six months after the procedure.

Fig.2 : The arrow showed soft tissue shadow occluding the nasopharyngeal airway

Discussion

In our center, the above cases are our earliest diagnosis of adult adenoid hypertrophy. We see many cases in children. The diagnosis was made with the aid of plain radiography of post nasal space. There is scarcity of data regarding incidence and etiological factors responsible for adenoid hypertrophy in adults in South East Nigeria. Orji et al 2009 reported a case of adult adenoid hypertrophy in a female in Nigeria.[8]The patient aged 23yrs presented with snoring, from nasal obstruction- The patient could not afford surgery early in the cause of her treatment, however adenoidectomy done eventually released her symptoms considerably. Specimen sent for histology showed lymphoid hyperplasia.

The above cases are probably the second reported case of adult adenoid hypertrophy in South East Nigeria and seen in males, aged 21 and 37 years respectively. They presented with similar symptoms as the case reported by Orji et al. The treatment and histology reports of these three cases are similar. Therefore, it appeared that adenoid hypertrophy occurred only in children as none was seen in cases reported in Nigeria.

The causes of adenoid hypertrophy in adults are not known, however various etio-pathogenic mechanisms have been proposed such as persistence of childhood adenoid due to chronic inflammation[9] or re-proliferation of regressed adenoid tissue in respond to infections or irritants [10].The presence of obstructed adenoid in 3% of heavy smoker was reported by Frankelstein et al [11]. In a series by Roule et al [12], allergy was associated with 30% of adult hypertrophy, HIV infection was associated with 3.3% of cases and Non Hodgkins and other sino-nasal malignancy was associated with 3.3% of cases. Our first case may be due to proliferation of childhood adenoid by infection while the second case was a heavy smoker and an allergic patient.

Histological report of our patients revealed reactive lymphoid hyperplasia which is similar to other published reports.[13]. Adenoidectomy was uniformly successful in relieving symptoms in most reports and is therefore recommended especially in non-malignant hypertrophy.

Conclusion

Adult adenoid hypertrophy is uncommon and most often missed as one of the causes of nasal obstruction in adults. Early diagnosis is required and adenoidectomy is the mainstay of treatment for the relief of obstructive symptoms.

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