Otolaryngology online journal

Volume 2 Issue 3 ISSN: 2250-0359

Title: Adenoids in adult siblings : Is it familial ?

Authors-1)Sulabha M Naik, Associate Professor

2)Mahendra S Naik, Associate Professor

3)Ginni Datta, Assistant Professor

4)ChandraPrakash Sharma, Postgraduate Student

5)Dalbir Singh, Professor & Head

Department of E.N.T.,M M Institute of Medical Sciences & Research, Mullana

Introduction

Waldeyer's ring is a collection of lymphoid tissue at the entrance to the aerodigestive tract.Adenoids are present in the nasopharyx.They begin to regress from the age of 8 to 10 years[1] and nearly always disappear by adulthood.
The persistent presence of adenoid tissue after puberty has been reported in literature.While investigating a case of nasal obstruction in adults,the possibility of persistence of adenoid tissue should be borne in mind.

Case history

Two female siblings presented simultaneously with the chief complaints of nasal obstruction and mouth breathing.They also gave history of recurrent throat infections. The elder sibling,20 years of age had history of nasal obstruction for twelve years.The other patient was 17 years of age had similar complaints for ten years.

On examination both patients had enlarged “kissing” tonsils and enlarged jugulodigastric lymph nodes.
On diagnostic nasal endoscopy,with 0° nasal endoscope,both patients has enlarged adenoids. X Ray of soft tissue of nasopharynx showed a nasopharyngeal mass with narrowing of airway.Both patients were advised adenotonsillectomyand were posted for surgery.The operation was uneventful in both patients.Histopathological examination of the nasopharyngeal mass confirmed the diagnosis of adenoids in both the siblings.

Discussion

Aggregates of lymphoid tissue in the gut & respiratory tract are collectively termed mucosa associated lymphoid tissue(MALT).These are subdivided into two categories,namely gut associated lymphoid tissue(GALT) and bronchus associated lymphoid tissue(BALT). These are macroscopically visible and are largely unencapsulated and lack afferent lymphatic vessels[1].The peripharyngeal deposits include the faucial tonsils and lingual tonsils in oropharynx and also the adenoids and tubal tonsils in nasopharynx. This lymphoid tissue is termed Waldeyer’s ring and it is believed to play a role in the defence of the upper airway.MALT,like all lymph nodes has lymphoid follicles and parafollicular zones.Here lymphocytes(T & B cells,antigen presenting cells) and macrophages undergo activation and proliferation.The location of MALT close to an epithelial surface allows easy access to pathogens.Any entry of pathogens in the MALT initiates humoral immunity via the T & B cells.

The adenoids,also known as nasopharyngeal tonsil,are a single midline structure occupying the roof and posterior wall of the nasopharynx.This mass of lymphoid tissue lacks a capsule and is covered by respiratory epithelium.At birth,the adenoids undergo rapid growth.However,after the age of 8 to 10 years,the adenoids begin to involute and eventually disappear on attainment of adulthood.

In some instances,hypoplasia may continue to occur in adults[1].There are several reports in literature indicating that adenoid tissue may persist upto adulthood.This persistence has a worldwide distribution and is not restricted to any continent or race.In 1929, Nelson (USA) has presented a report of nineteen cases of adenoids in adults[2]. Kamel and Ishaka in Egypt reported 35 cases of enlarged adenoids with ages ranging between 20 and 42 years[3].Yildrim,et al reported from Turkey a series of adenoid enlargement in 40 adults[4].In the Indian subcontinent Anwar ul Haq from Pakistan reported a case of a 22 year soldier who presented with an enlarged adenoid mass[5].In a prospective study of hundred adult patients with nasal obstruction in Jeddah,Saudi Arabia,seven cases of adenoid enlargement were diagnosed.[6] These reports are indicative that persistence of adenoid tissue upto adulthood is not uncommon.The likely etiology of persistence of adenoids in adulthood needs to be investigated.
This is the first report from India of an instance of persistence of adenoid enlargement in adult siblings.Currently there are no reports in literature regarding familial incidence of this condition .However Kvestad et al [7],in their paper on a study of Norwegian twins,

have stated that recurrent tonsillitis has a genetic predisposition.This is the first report which has investigated the possibility of tonsillitis due to heredity.

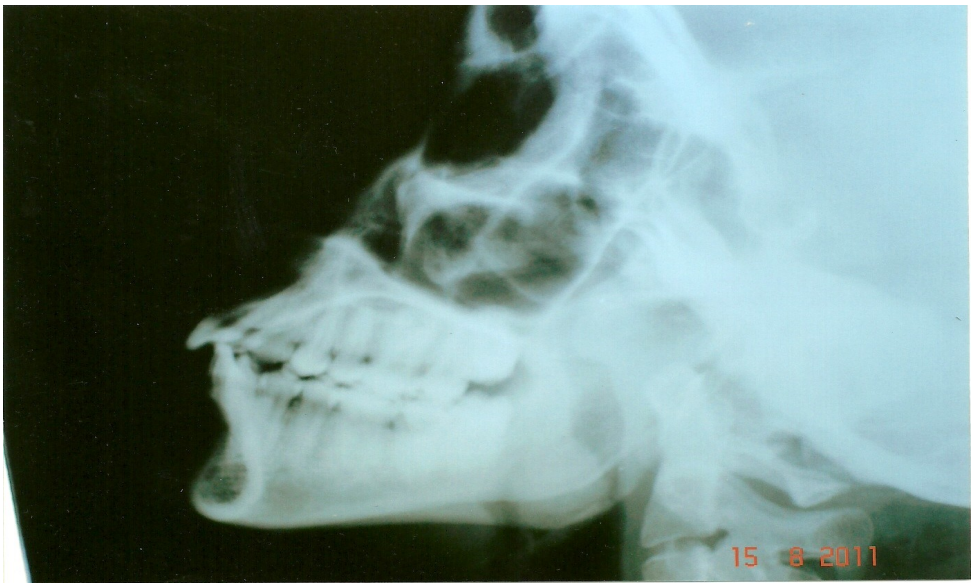
Conclusion

The lymphoid tissue of Waldeyer's ring exerts local immunity to antigens and differences in this defence mechanism among individuals may be responsible for difference in susceptibility to recurrent tonsillitis [8] .Like recurrent tonsillitis, the tendency for adenoidal tissue to persist upto adulthood may also be genetic.This hypothesis needs to be investigated further.
Also ,the suggestion that persistence of adenoid tissue in adults may be familial needs to be validated.More evidence in the form of case reports,is needed to support this theory.

Acknowledgements

The authors wish to thank Dr.Nitish Baisakhiya,Associate Professor, Department of E.N.T., M M Institute of Medical Sciences & Research for his valuable guidance in the preparation of this publication.

X-ray Nasopharynx of Patient 1 showing adenoid hypertrophy



X-ray Nasopharynx of patient 2 showing adenoid hypertrophy

References

1) The anatomical basis of Clinical practice. In: Susan Standringe, editor. *Gray's Anatomy*. 39th Edition: Elsevier; 2005. p. 77:619-620.

2)Nelson Roy F. Adenoids in adults:A Clinical study. *Arch Otolaryngol*. 1929;10(1):70-72.

3)Reda H.Kamel,Elia A.Ishaka. Enlarged adenoid and adenoidectomy in adults:Endoscopic approach and histopathological study.*The Journal of Laryngology and Otology.* Dec 1990;104: 965-967.

4)Yildrim N,Sahan M, Karslioglu Y. Adenoid hypertrophy in adults: clinical and morphological characteristics. *J Int Med Res*. 2008 Jan-Feb;36(1):157-62.

5)Anwar ul Haq,Nasir Ullah Khan,Adnan Asghar,Faisal Manzoor,Mohammad Akhtar,Shahid Pervez .Adenoid hypertrophy:An unusual cause of nasal obstruction in adults. *Pakistan Armed Forces Medical Journal*. Dec 2009;5. Available at http://www.pafmj.org/showdetails.php?id=147&t=c. Accessed 4th Dec 2011.

6)Jamal T S.Adenoids in Adults.*JKAU Med Sci* (1995-1997) Vol.5 pp 29-34.

7)Kvestad E,Kvoerner K J, Roysamb E,et al.Heritability of Recurrent Tonsillitis.*Arch Otolaryngol.*2005;131:383-387

8)Smith Richard J H.Recurrent Tonsillitis Among Twins.*JAMA*,2005.Vol.293 No.23:2925-2926.