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Case Report

A rare case of unilateral lymphoid papillary hyperplasia of tonsil in a nine-year-old girl

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ABSTRACT

We report a rare case of lymphoid papillary hyperplasia of palatine tonsil in a 9-year-old girl. It is a rare benign pathology characterised by papillomatous appearance of palatine tonsil with reactive lymphoid hyperplasia. Early recognition of this lesion is important because in spite of clinical feature being suggestive of malignant tumour, it is a benign tumour-like proliferation, that can easily be cured by tonsillectomy.

Keywords: Papillomatous, Lymphoid papillary hyperplasia, Palatine tonsil

INTRODUCTION

Palatine tonsils are centres for acute and chronic inflammation. Chronic tonsillitis is the most common disorder of palatine tonsil with inflammatory pathology.[1] Lymphoid papillary hyperplasia (LPH) of the tonsils is a benign disorder and is a rare pathology, commonly associated with symptom of dysphagia.[2] Bilateral involvement of the palatine tonsils is more common for LPH.[3] Our case was rare because LPH involved only left palatine tonsil, clinically mimicking neoplasm. LPH is characterized by gross appearance of a papillary, papillomatous, or multiple polypoid with reactive follicular hyperplasia covered by a non-atypical squamous epithelium.[3] First case of papillary hypertrophy of tonsils was reported by Ogino and Matsui, since then 30 cases have been reported in Japan.[2] However, this abnormality is uncommon and has not been well documented among the Indian population. Herein, we report an Indian case of this rare benign pathology.

CASE REPORT

A 9-year-old female presented to the Otolaryngology department of our hospital with complaint of enlargement of left tonsil which she noticed 2 months back. This was associated with odynophagia and dysphagia over the past 3 months. There were no other symptoms such as fever, cough, haemoptysis, or dyspnoea.

No family history relevant to patient's tonsillar lesion was found. Her past medical history was unremarkable. Physical examination showed a papillomatous enlargement of left tonsil with cobblestone appearance (Figue 1). The patient's right tonsil was normal in appearance. The left upper jugulo-digastric lymph nodes were enlarged. The clinical examination was suspicious of a neoplastic lesion, although patient did not have any other clinical or any laboratory abnormalities. Plain axial CT of neck revealed a pathology of left palatine tonsil suspicious of malignancy (Figure 2).

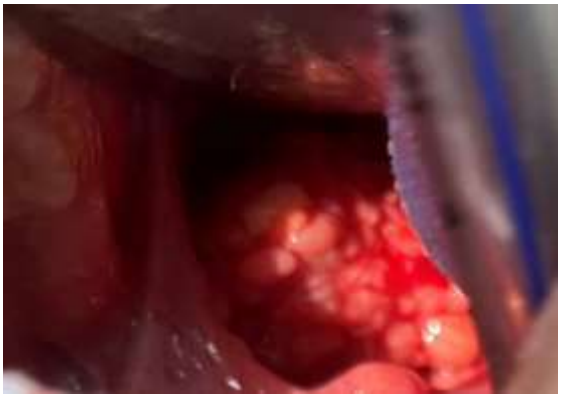

Figure 1: Preoperative view of left tonsil.

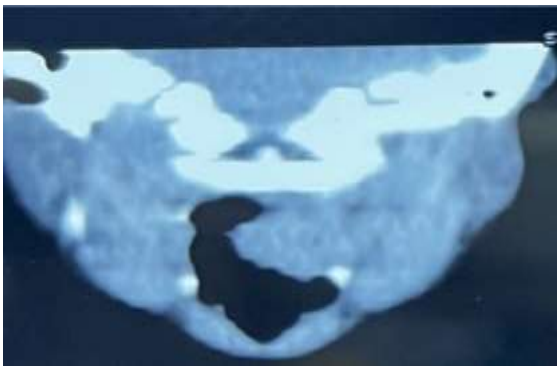

Figure 2: Computed Tomography of Neck showing enlarged left tonsil.

Fine needle aspiration cytology of left nodes showed reactive lymphadenitis. Surgical tonsillectomy was performed, and specimen was sent for histopathological examination. Postoperative period was uneventful, and patient recovered completely with a healthy left tonsillar fossa that healed well postoperatively (Figure 3).

Figure 3: Post-operative day 10 showing well healed left tonsillar fossa.

Grossly, the biopsy consisted of a grey, soft white tissue mass measuring 3x2x2 cm. Histopathological examination of the biopsy revealed tonsillar parenchyma thrown into papillary folds, with underlying lymphoid follicles and thick fibrous bands. Multiple crypts were identified filled with desquamated cells, keratin material and neutrophilic infiltrate. Also identified were areas of acute suppurative infiltrates. Few colonies of actinomycosis and foci of ectopic cartilaginous tissue were also identified (Figure 4).

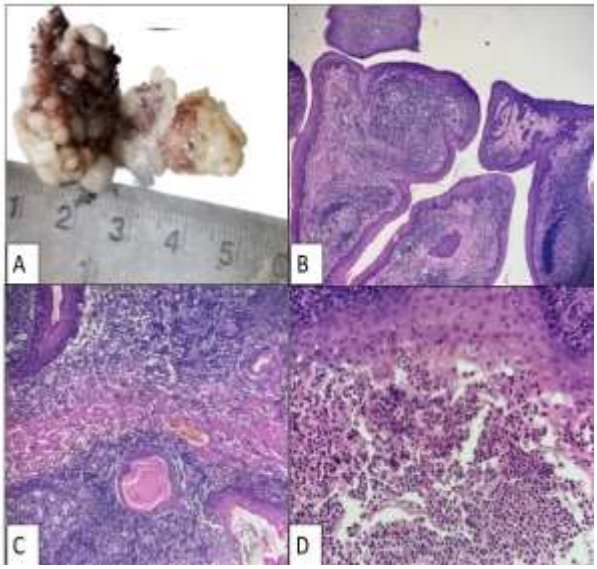

Figure 4: A) Grossly, the tonsil shows several small papilliform projections on the surface, B) Tonsillar parenchyma thrown into papillary folds with underlying enlarged lymphoid follicles (Hematoxylin & Eosin, 10X), C) The fibrous bands and occasional keratin filled cysts identified within tonsillar parenchyma. (Hematoxylin & Eosin, 20X), D) Area of acute suppurative inflammatory infiltrate comprising of mainly of neutrophils identified just beneath the squamous epithelium (Hematoxylin & Eosin, 40X).

The histopathological examination was suggestive of a diagnosis of lymphoid papillary hyperplasia of the tonsil.

DISCUSSION

Lymphoid papillary hyperplasia is one of the rare abnormalities of the palatine tonsils, with a clinical suspicion of both a benign and a malignant tumor.[1] Benign conditions like oral squamous papilloma and lymphoid polyposis could produce symptom of severe pharyngeal obstruction. Whereas microscopic examination of this lesion shows rich lymphoid tissue with intense follicular hyperplasia without monomorphic lymphoid hyperplasia and the covering mucosa showing only mild hyperplasia without atypia, could be readily identified as a benign, tumor-like lesion and can easily be distinguished from other neoplastic pathologies. Another rare nonneoplastic lesion, described by Kardon et al as a hamartomatous proliferation, termed as tonsillar lymphangiomatous polyps, can both clinically and macroscopically shows similarity with lymphoid papillary hyperplasia.[4] However, these tonsillar polyps histologically show a characteristic submucosal

proliferation of endothelial-lined lymph-vascular channels amid a fibrous, lymphoid, or adipose stroma, lacking the prominent lymphoid follicles hyperplasia which is characteristic of lymphoid papillary hyperplasia.

This condition has been known since 1896, when Roberts reported an interesting case of lymphoid papillary hyperplasia that was clinically described as resembling a papilloma of the tonsil.[4] From then on, lymphoid papillary hyperplasia was most commonly reported in Asian populations.[5] First case of papillary hypertrophy of the tonsils was reported by Ogino and Matsui in 1924, since then around three dozen cases of this pathology have been reported in Japanese literature.[4] The age and sex distribution of patients in previously reported cases revealed females to be slightly more commonly affected than males, with an age ranging from 2 to 54 years. Recently reported case showed female predominance with predilection for young girls.[1] Highest cases cases of lymphoid hyperplasia is found during childhood. In children's symptoms of pharyngeal obstruction that are related to hyperplasia of pharyngeal tonsils are common because of the small size of the nasopharynx. Most reported cases of lymphoid papillary hyperplasia of tonsil presented with bilateral involvement, however our patient presented with involvement of only left palatine tonsil, sparing the opposite one. The cause of lymphoid papillary hyperplasia is unclear. Some of the suggested causative factors, reviewed by Dias et al in 2003, include repeated inflammatory attacks, hormonal disturbances, neoplasia, and congenital deformity with autosomal dominant inheritance.[1] Lymphoid papillary hyperplasia may be the result of the excessively persistent antigenic stimulation of tonsils with T-lymphocyte-mediated immune response playing a major role, However the exact regulatory mechanism causing this pathology is not entirely known.[3]

CONCLUSION

This case report highlights that lymphoid papillary hyperplasia is a rare abnormality of the tonsils with physical appearance suspicious of malignancy with a predilection for young Asian females. Herein, we report a case of this rare condition of unilateral lymphoid papillary hyperplasia of tonsil in a 9-year-old Indian girl. The importance of recognizing this pathology lies in the fact that in spite of the clinical appearance being suggestive of a diagnosis of epithelial papilloma or even a malignancy, the pathology is a benign one, non-neoplastic, and could be differentiated from other neoplastic lesions by histopathological examination and can be treated by performing tonsillectomy.

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REFERENCES

1. Zhao M, Yu J, Li C. Lymphoid papillary hyperplasia of the palatine tonsil: a Chinese case report. Int J Clin Exp Pathol. 2013;6:1957-60.
2. Enomoto T, Enomoto T, Matsui K, Tabata T. Papillary hypertrophy of the palatine tonsils.Ann Otol Rhinol Laryngol.1980;89:132-4.
3. Schantz A, Goodman M, Miller D.Papillary hyperplasia of the lingual tonsil.Report of a case. Arch Otolaryngol.1972;95:272-3.
4. Dias EP, Alfaro SE, De Piro SC. Lymphoid papillary hyperplasia: report of a case. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2003;95:77-9.
5. Carrillo-Farga J, Abbud-Neme F, Deutsch E. Lymphoid papillary hyperplasia of the palatine tonsils. Am J Surg Pathol. 1983;7:579-82.

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