

Original Research Article

Allergic tonsillar polyp: an uncommon lesion

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ABSTRACT

Background: Tonsils are not so commonly affected by allergic lesions or polyps. In this study we attempt to elucidate the nature of tonsillar polyps.

Methods: The present study is a hospital based retrospective clinicopathological study in which a total of nine cases whose histopathological slides were reviewed and patient follow up was obtained.

Results: There were 5 males and 4 females between the age group of 15 to 30 years. Most of the cases presented with complaints of repeated throat pain, difficulty swallowing, foreign body sensation in throat and dry irritating cough. On examination a pedunculated sessile mass in seen protruding from the surface of the palatine tonsil usually unilateral. The clinical differentials included were tonsillar lipoma, haemangioma, lymphangioma, inclusion cyst and neoplasm. Based on histopathological examination following tonsillectomy with polypectomy a conclusion of allergic polyp was made and clinical follow up information of patients were obtained post-operatively. In this series we examine the clinicopathological features of polypoidal lesions of tonsils whose specific diagnosis was obtained after histopathological examination.

Conclusions: A histopathological examination must be obtained in all cases of tonsillar polyps for proper post-operative management.

Keywords: Tonsils, Histopathology, Polyp, Allergic

INTRODUCTION

Polyps occurring in the upper respiratory tract are usually found in the nasal or laryngeal cavity but are rarely found in the oropharynx.

These polyps are a kind of benign lesion of the tonsils and differ from acute and chronic tonsillitis. They cause symptoms related to local irritation like chronic tonsillitis and their diagnosis is based on postoperative histopathological examination.

Here we discuss few common lesions seen in association with tonsil as literature regarding the uncommon lesion to be discussed here is not available anywhere.

Lymphangiomas mostly occurs where lymphatics are abundant thus more than 90 % are seen in head and neck region. Most are found in the skin and subcutaneous tissue but have also been described in larynx, parotid gland, mouth and tongue. Lymphangiomatous polyps of the palatine tonsils have rarely been reported.¹

It usually arises from a pedicle which is attached to the tonsil and project into the oropharynx.²

Tonsillar lymphangiomatous polyp is a kind of hamartomatous lesion and has been described by different nomenclatures such as lymphangiectatic fibrous polyp, polypoid lymphangioma of the tonsil, hamartomatous tonsillar polyp and so on.^{2-5,6,7}

Oropharyngeal malignancy is the second most common malignancy of the head and neck. More than 75% of these oropharyngeal carcinomas occur in the tonsillar area. Two-thirds of the patients with tonsillar carcinomas present at advanced stages because early lesions are generally asymptomatic when small. At presentation, 45% of lesions and 76% of lesions have clinically positive neck nodes.⁸

Lipomas are benign, slow-growing neoplasms composed of an abnormal collection of mature adipose cells. They usually occur in subcutaneous tissues but rarely in the aerodigestive tract. Nevertheless, benign tumours of the tonsils occur infrequently. Histologically, the normal tonsillar framework is usually devoid of adipocytes. To our knowledge, there are only six documented cases of tonsillar lipoma in the English literature.⁹⁻¹⁴

Ear, nose and throat (ENT) is a very fertile field for allergic manifestations but oropharyngeal and especially tonsillar allergic lesions which are to be discussed in this paper are not available anywhere in literature.

METHODS

The study was carried out in M. G. M. Medical College and Hospital, Aurangabad affiliated to M. G. M. Institute of Health Sciences by the same surgeon. The study aimed to identify and to histopathologically differentiate various types of tonsillar polyp. A series of 9 patients of tonsillar mass of different age group who after proper history, clinical examination and pre anaesthetic check-up and underwent tonsillectomy were taken into consideration.

Table 1: Demographic data with symptomatology.

S. no.	Age/sex	Presenting complaints
1	15/M	Throat pain, difficulty swallowing
2	25/M	Foreign body sensation, dry cough
3	22/M	Throat pain, dry cough, change in voice
4	17/M	Dry cough, throat pain
5	20/M	Asymptomatic initially followed by foreign body sensation in throat with pain
6	23/F	Difficulty swallowing, throat pain, cough
7	25/F	Throat pain, cough, difficulty swallowing
8	28/F	Asymptomatic initially followed by foreign body sensation in throat and difficulty swallowing
9	16/F	Dry cough, difficulty swallowing

Most of these patients presented with symptoms of repeated throat pain, difficulty swallowing, foreign body sensation in throat and dry irritating cough. Some were asymptomatic till the polyp was large in size (Table 1).

On clinical examination of oropharynx on inspection a pedunculated, smooth, sessile mass of size approximately 2x2 cm is seen protruding from the surface of the palatine tonsil usually unilateral, mostly the site of origin being the supratonsillar cleft (Figure 1). On palpation it was smooth and firm in consistency, non-tender and did not bleed on touch. With only variation in size and side of the polyp rest of the findings were same for all the 9 patients. No cervical lymphadenopathy was observed in any of these patients. Conservative management with oral antibiotics, anti-inflammatory and analgesics were tried but no change in size of the polyp was seen and only symptomatic relief for a short duration of period was attained. Thus these patients were then worked up for surgery.

Routine investigations included haemogram, renal function tests, erythrocyte sedimentation rate (ESR), serology and other investigations required for pre anaesthetic evaluation are done and the patients were taken for polypectomy with tonsillectomy under general anaesthesia and this formalin based sample was then subjected to histopathological examination. Post-operatively the patients were given intravenous (I.V.)

antibiotics and symptomatic treatment and close follow up of patient was obtained.

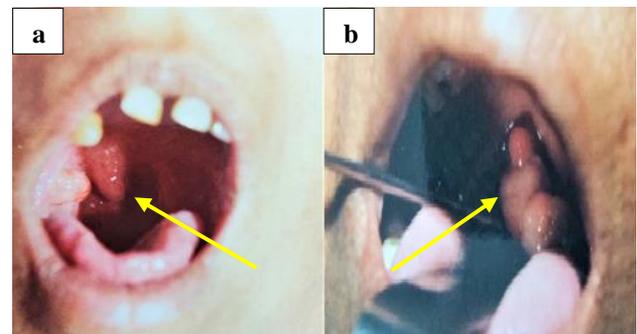


Figure 1 (a and b): Arrow pointing at polypoidal mass involving the tonsil.

RESULTS

A tonsillar polyp is usually asymptomatic when small in size and may therefore be discovered incidently on physical examination. When symptomatic the common presenting symptoms are foreign body sensation in throat, recurrent throat pain, dry irritating cough and change in voice none of them being specific for any disease condition.

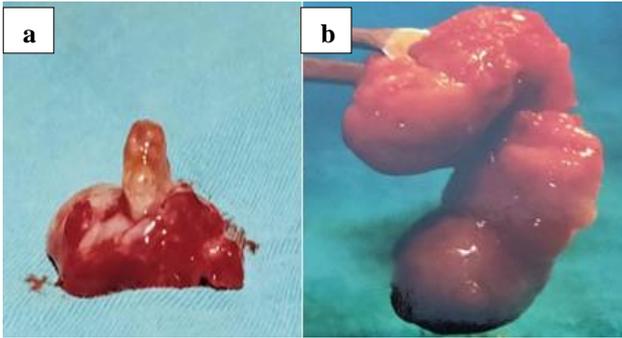


Figure 2 (a and b): Unilateral tonsil with polyp post tonsillectomy with polypectomy.

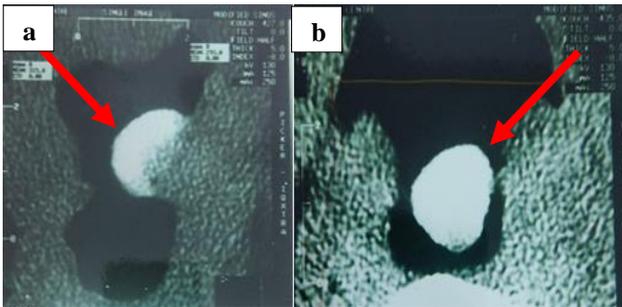


Figure 3 (a and b): CT images showing polypoidal mass.

As discussed above a pedunculated, smooth, sessile mass of size approximately 2×2 cm is seen protruding from the surface of the palatine tonsil (Figure 2). On gross examination of the same it was smooth and firm in consistency. Clinically these features exclude the probability of tonsillar neoplasm and haemangiomas. Some patients also underwent radiological examination like x-ray and computed tomography (CT) scan (Figure 3).

DISCUSSION

This article discusses about 9 such patients of different age groups who presented with a polypoidal growth over a unilateral tonsil. After brief clinical, radiological and gross examination now we come on to histological examination for confirmation of diagnosis.

Tonsils are large non-encapsulated or partially encapsulated masses of lymphoid tissue that lie in the walls of the pharynx and nasopharynx and at the base of the tongue. The luminal surface of the tonsils are covered with a stratified squamous epithelium. The tonsils have many invaginations which form blind crypts. Below the epithelium, there are many lymphoid follicles beneath which have germinal centres like lymph nodes (Figure 4).

Histologically the polypoidal tissue was lined by hyperkeratotic, parakeratotic stratified squamous epithelium with eosinophil infiltration in submucosal area replacing the lymphocytes (Figure 5).

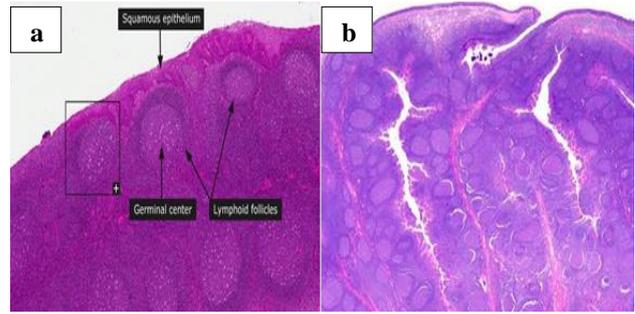


Figure 4: (a) and (b) Normal tonsillar tissue with lymphoid follicles and crypts. Image source - pathology outlines.

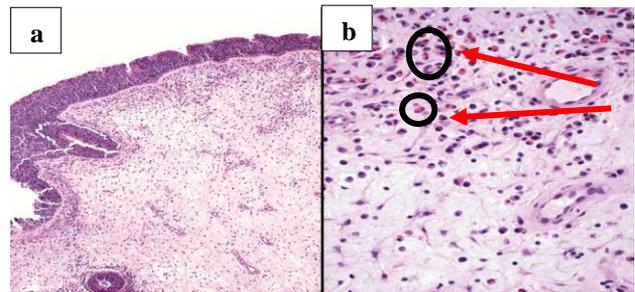


Figure 5: (a) Allergic tonsillar lining, and (b) eosinophilic infiltration (pink cells with bilobed nucleus).

Eosinophils are a type of disease-fighting white blood cell. A marked increase in non-blood tissue eosinophil count noticed upon histopathologic examination is diagnostic for tissue eosinophilia.¹⁵ Several causes are known, with the most common being some form of allergic reaction or parasitic infection, in this study the cause being allergic.

It also showed presence of numerous blood vessels and lymphoid tissue in polypoidal mass. Thus the above findings on histology ruled out all the causes of tonsillar mass/polyp like lymphangioma, neoplasm, and cyst leaving us with a diagnosis of a rare condition of allergic tonsillar polyp being one of its kind as till date no literature is available on it.

CONCLUSION

In this study we came across usual presentation of any tonsillar mass but which was proved after histopathological examination that all these were cases of uncommon allergic polyps of the tonsillar region which has never been reported and documented in literature.

Hence it is seen that without a proper histopathological examination an accurate diagnosis is difficult. Tonsillectomy is curative in such cases with excellent prognosis with no reported recurrence. Post-operative treatment mainly consists of anti-allergic treatment namely anti-histaminics.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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