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Case Report

Hamartomatous polyp of the tonsil: a case report

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Abstract Hamartomatous polyps of the tonsil are very rare. They have been described using various terms such as a lymphangiomatous polyp, lymphangiectatic fibrous polyp, lipomatous polyp or pedunculated tonsil, thus the actual incidence is difficult to be quantified. We present a case of hamartomatous polyp of the palatine tonsil in a 30-year-old female presented with recurent tonsillitis. Histopathological examination of the resected tonsils showed features of chronic tonsilitis with incidental finding of hamartomatous polyp characterized by a polypoidal tissue covered by stratified squamous epithelium and composed of thin-walled blood vessels, lymphatic channels, fibrofatty tissues, seromucinous glands and striated muscle fibres. An unusual incidental histopathological finding of a rare condition has been discussed along with the review of literature.

Keywords: hamartoma, polyp, tonsil.

Introduction

Hamartoma is a mass of disorganized tissue indigenous to the particular site and have traditionally been considered as developmental malformation. However, some genetic studies have shown the presence of acquired translocations, suggesting a neoplastic origin (Kumar *et al.*, 2012).

Hamartomatous polyp of palatine tonsil is very rare. The actual incidence is not documented due to different name used by pathologist to describe this polyp including lymphangiectatic fibrous polyp, hamartomatous polyp, lipoma, pedunculated hamartomatous polyp and others (Lyngdoh *et al.*, 2013). The name given to it depends on histological content of the polyp. Above all, the important thing is that, it is a hamartomatous lesion and not neoplastic. However malignant transformation can arise from hamartomatous polyp but very rare (Kumar *et al.*, 2012). A review of the reported cases shows patient usually presented with symptom of recurrent tonsillitis, mass in the throat, difficulty in swallowing, blood upon cough and dysphagia (Sethi *et al.*, 2011). These are non specific symptoms due to mass effect. Patient are usuallly well after the removal of this polyp. We report a case of a 30-year-old female presented with recurrent tonsillitis and incidental finding of this hamartomatous polyp through microscopic examination.

Case report

A 30-year-old Malay lady presented with history of recurrent episodes of fever and sore throat for one year duration. It was associated with pain on swallowing. The attack occurred almost once in a month which required a course of antibiotics during each episode. The patient also admitted to have a history of snoring.

Examination of the oral cavity revealed bilateral moderately enlarged tonsils with exudates in the crypts. The anterior pillar was congested. Nasal endoscopy revealed an enlarged adenoid. The clinical findings were consistent with chronic adenotonsillitis. Patient underwent

tonsillectomy and adenoidectomy under general anesthesia. Both tonsils were dissected with cold instrument methods and adenoid tissues were curetted. The specimen was sent for histopathological examination. Post operative period was uneventful.

Pathological findings

Grossly the specimen consisted of a gray-white globular tissues measuring 25x15x10 mm and fragmented tissues measuring 20x10x8 mm and 10x10x5 mm. Sectioning of the tissues showed homogenous whitish surface. There was a separated polypoid tissue measuring 10x10x3 mm which was firm in consistency and cut section also showed homogenous whitish surface. On microscopic examination, there was a chronic tonsillitis which was characterized by a tissue composed of multiple lymphoid follicles with prominent germinal centres and covered by stratified squamous epithelium. Apart from that, there was another separated polypoid structure found which was also covered by a stratified squamous epithelium (Figure 1). The stroma of this polypoid tissue was partly oedematous, composed of a loose fibrocollagenous tissue, congested thin-walled blood vessels, lymphatic channels, striated muscle fibres, adipose tissues and benign seromucinous glands (Figure 2 and 3). No evidence of malignancy was noted.

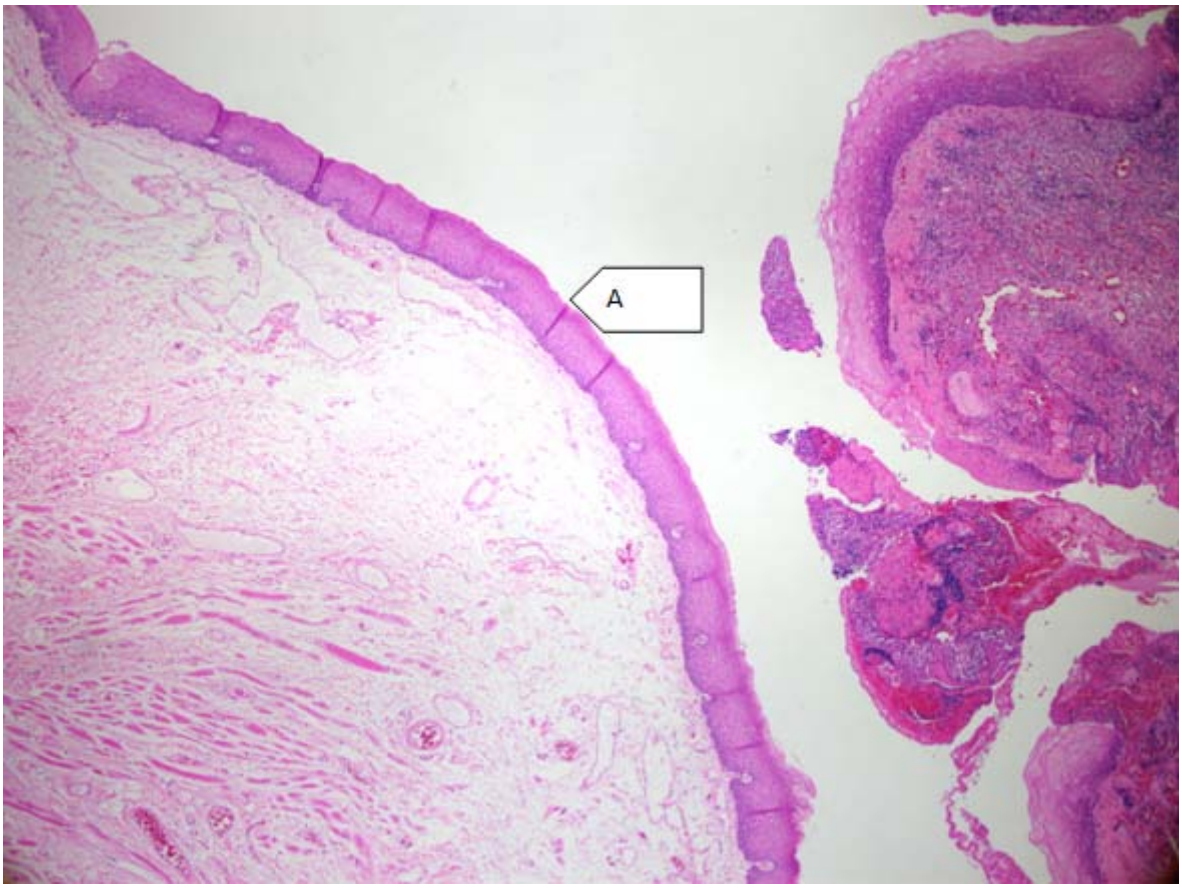

Fig. 1 A polypoidal structure is covered by non-keratinized stratified squamous epithelium (A). (H&E stain, x40).

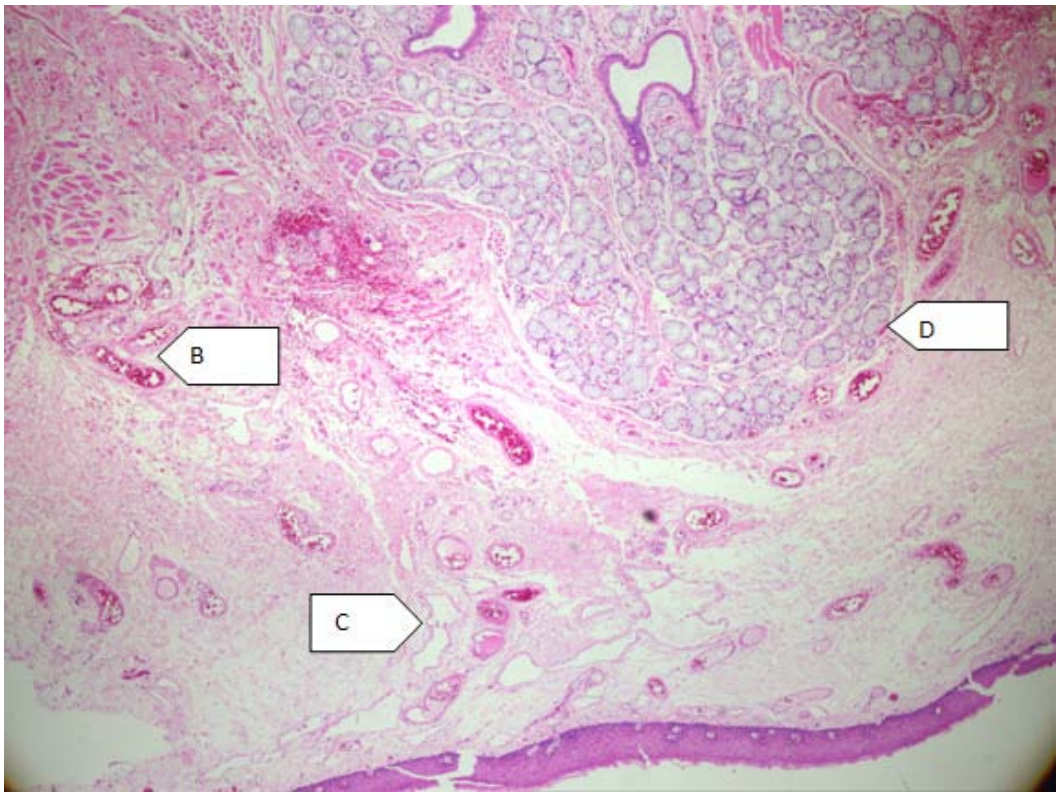

Fig. 2 The stroma is oedematous composed of a loose fibrocollagenous tissue, congested thin-walled blood vessels (B), lymphatic channels (C), and benign seromucinous glands (D) (H&E stain, x200).

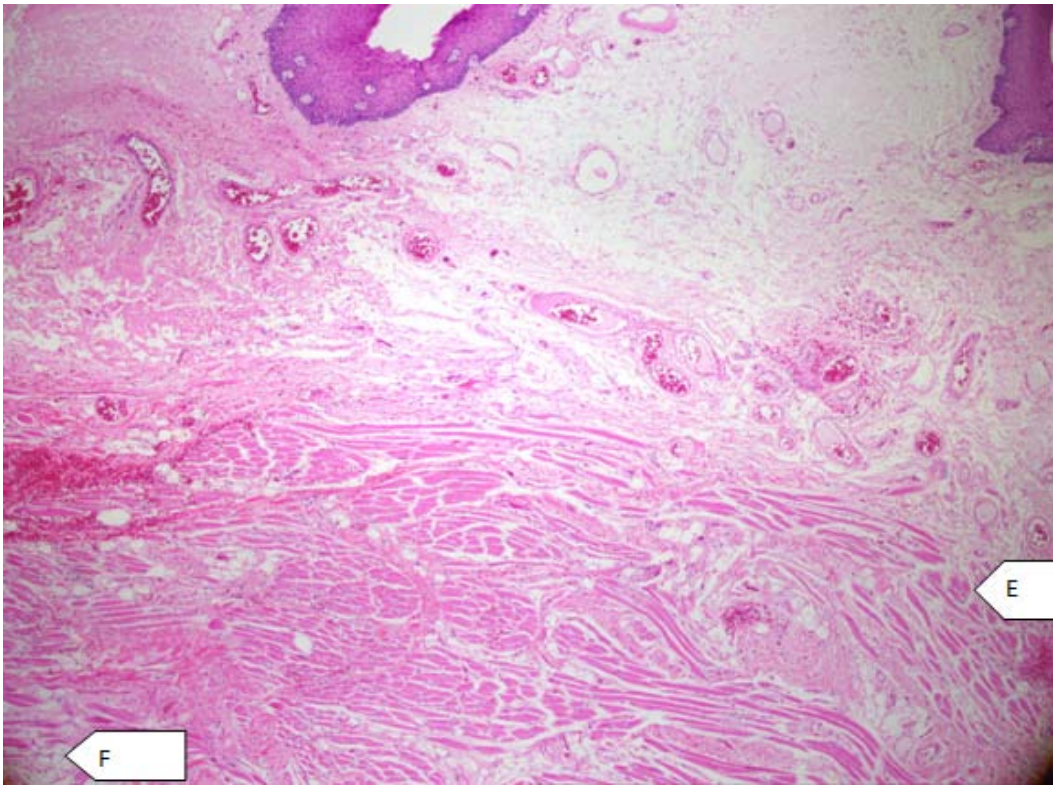

Fig. 3 The polyp contains proliferating striated muscle fibers (E), adipose tissues (F) and congested thin-walled blood vessels. (H&E stain, x200).

Discussion

Hamartoma is derived from a Greek word 'hamartion' which means a bodily defect. It is actually a tumour-like growth composed of mature tissues that are normally present at the site in which they developed. Different with choristoma, another tumour-like growth of well developed normal cells in abnormal location (Naik *et al.*, 2009). Although a hamartoma is not a tumour, malignant changes can develop (Kumar *et al.*, 2012). They may occur in any organ, but most often in the spleen, liver and lungs. Hamartomas are very rare in the head and neck region, especially in the pharynx (Shara *et al.*, 1991).

Hamartomatous polypoidal lesions of the tonsil, although reported using various types of nomenclature, are relatively rare lesions. In the literature, this lesions have been described as angiomatous or hemangiomatous (Shara *et al.*, 1991), lymphangiomatous (Kardon *et al.*, 2000), lipomatous (Harada *et al.*, 1995) or fibrolipomatous (Nandakumar *et al.*, 2010) tonsillar polyps. Most of the terms used are based on histological constituents of the excised mass and the tissues of origin. Shara *et al.* (1991) reported a polypoid mass of tonsil which was formed of mainly thin-walled blood vessels, intermingled with collagen fibres and islands of lymphoid tissues, covered by stratified squamous epithelium. The predominant structures of blood vessels lead to the diagnosis of haemangiomatous type of hamartomatous polyp (Shara *et al.*, 1991). Kardon *et al.* (2000) reviewed 26 cases of benign tonsillar polyps which histologically covered by squamous epithelium and composed of proliferation of lympho-vascular channels, collagen fibres, adipose tissues and lymphocytic infiltration. These lesions have been classified as tonsillar lymphangiomatous polyps (Kardon *et al.*, 2000). Harada *et al.* (1995) reported a polyp contained dilated lymphatics in the dense fibrous connective admixed with abundant mature adipose tissues that gave name as tonsillar lipoma (Harada *et al.*, 1995). Nandakumar *et al.* (2010) found a polypoid tonsillar lesion composed of mature adipose tissue with intervening strands of fibrous tissue, several congested septal capillaries, scattered lymphoid follicles with germinal centres and a covering of non-keratinized stratified squamous epithelium that gave rise to fibrolipoma of the tonsil (Nandakumar *et al.*, 2010).

In the present case, we found a separated tonsillar polyp apart from bilateral lymphoid reactive hyperplasia due to chronic tonsillitis. The polyp was composed of a loose fibrocollagenous tissues, congested thin-walled blood vessels, lymphatic channels, striated muscle fibres, adipose tissues and benign seromucinous glands, covered by non-keratinized stratified squamous epithelium. Our case differs from the other reported cases because this is an incidental finding in chronic tonsilitis with other separated mass of tonsillar polyp. Whereas, other reported cases presented with only a tonsillar polyp without chronic tonsillitis. In term of histological constituents, we found that this present case has seromucinous glands and striated muscle fibres and lack of lymphoid tissues within the polyp. These 2 structures (seromucinous glands and striated muscle fibres) are not a foreign tissues for a tonsillectomy specimen because it frequently removed during this procedure (Gnepp and Souther, 2000; Erkiliç *et al.*, 2002). All the above tissues are common to this site forming a mass lesion fits definition of hamartoma, so that hamartomatous polyp is an appropriate nomenclature for this lesion (Lupovitch *et al.*, 1993).

Due to various name has been used for this lesion according the histological appearance, the true incidence of this hamartomatous polyp remains unclear. Because of the unusual clinical presentation and histological appearance, pathologist and clinician may have difficulty to classify this hamartomatous lesion. In view of that this hamartomatous lesion should be one of the differential if patient presented with sore throat, difficulty in swallowing, blood in sputum, snoring and etc. The prognosis is excellent and patient recovers completely from the symptoms after removal. However

in the absence of such polypoidal appearance in clinical examination, it should be treated as chronic tonsillitis. In the case of acute tonsillitis, a-week course of antibiotic would be sufficed. Recurrent attacks or features consistent with chronic tonsillitis would require tonsillectomy. Similar to tonsil hamartomatous polyp, the symptoms will diminish after resection as the presenting complaints are mainly due to physical presence of the mass. Eventhough genetic studies have shown the presence of acquired translocations in hamartoma which suggesting a neoplastic origin, (Kumar *et al.*, 2012) however, to date, no malignant transformation have been seen involving hamartomatous tonsillar polyp and the recurrence is very rare.

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