

Lymphangiomatous Polyp of Tonsil: A Case Report

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ABSTRACT

Lymphangiomatous polyps of the palatine tonsils are uncommon hamartomatous proliferations that could be clinically misdiagnosed as malignant neoplasms. These polyps consist of dilated lymphatic vessels located inside fibrous and/or adipose tissue. In this paper, a 27-year-old man who presented to the outpatient clinic with a complaint of dysphagia is presented. On physical examination, the patient had a smooth, polypoid mass extending from the posterior section of the right palatine tonsil into the oropharynx. The patient underwent right tonsillectomy. Histopathological examination of the specimen showed typical features of a lymphangiomatous polyp of the tonsil. The case is reported with the accompanying literature to avoid the possibility of misdiagnosing it as a malignant lesion clinically.

Key Words: Tonsillar neoplasm, Polyps, Hamartoma

INTRODUCTION

Lymphangiomatous polyps are uncommon, benign hamartomatous proliferations that generally arise from the surface of the palatine tonsils (1). The polyp is covered by squamous epithelium and its stroma consists of different components that vary from loose to dense collageneous and adipose tissue, dilated lymphatic channels and lymphoid tissue (2,3). In this paper, we report an extremely rare case of a lymphangiomatous polyp on the right tonsil.

CASE REPORT

A 27-year-old man presented with dysphagia. Physical examination of the patient showed a smooth, polypoid mass extending from the posterior section of the right palatine tonsil into the oropharynx. The rest of the oral cavity, nasopharynx and laryngopharynx proved to be otherwise normal on inspection. He underwent right tonsillectomy under general anesthesia. On gross examination of the right tonsil, it was measured as 30x20x15 mm in size and there was an exophytic polypoid nodule measuring 40x20x15 mm that was attached without a stalk (Figure 1). The cut surface was smooth and white-to-tan in color.

Histologically, the polyp was covered by squamous epithelium and its stroma consisted of a variety of loose fibrous connective tissues, lymphoid aggregates and dilated lymphatic vascular channels (Figure 2A,B). The tonsil was slightly hypertrophic and inflamed. Immunohistochemical tests showed that the lymphatic vessels of the endothelium

Received: 28.10.2011 Accepted: 23.07.2012

were reactive with anti-CD31 (Figure 3A) and anti-CD34 (Figure 3B). LCA was expressed in the lymphoid cells within the vascular channels and stroma. In these lymphoid cells, a polymorphous pattern with CD3 and CD20 were present. There was no sign of recurrence of the lesion in this case during the follow-up period of three years.

DISCUSSION

Lymphangiomatous lesions mostly arise from the head and neck region and they constitute more than 90% of all lymphangiomas. They originate from the palatine tonsils very rarely (2). Tonsillar lymphangiomatous polyps are uncommon benign lesions, but it is possible that they are clinically misdiagnosed as malignant neoplasms (1,2). In previous reports, lymphangiomatous polyps were described under different names such as lymphangiectatic fibrous polyp, polypoid lymphangioma of the tonsil, and hamartomatous tonsillar polyp (2,4,5). Kardon et al. presented the series with the largest number including 26 patients in 2000 and detected 10 cases that were welldocumented in the literature (2). Most of the published cases were adults (6,7) and a few were children (1,5). Due to different terminologies, finding out the true incidence is quite difficult (2).

In the mentioned series, it was shown that the median age of the patients was 25 (range 3-63) years without a gender difference (2). The clinical signs of the lymphangiomatous polyps were dysphagia, dyspnea, a sensation of a foreign

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⁽Turk Patoloji Derg 2016, 32:119-121)

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Figure 1: Showing surgical specimen of palatine tonsil with polyp.

body in the throat, sore throat, tonsillitis, and tonsillar mass (1,5). The most important and only symptom was dysphagia in our case.

The underlying pathophysiological mechanism of polyp formation is not clearly known, but two hypotheses have been proposed. In the first theory, Visvanathan postulated that chronic inflammation results in irreversible obstruction of the lymphatic channels with congestion, eventually leading to the formation of the polyp (8,9). Similarly, our case had recurrent tonsillitis attacks. In the second theory, Heffner has proposed that these lesions should be regarded as hamartomas in tonsillar tissue rather than as a neoplasm as these elements are normally found in the tonsillar fossa but arranged in a different pattern (1,10). Tonsillar hamartomas may be found in different



Figure 2: Lymphangiectatic channels and small aggregates of lymphoid tissue are seen irregularly dispersed in the fibrous stroma and the polyp is covered by stratified squamous epithelium. A) H&E; x40, B) H&E; x100.



Figure 3: Lymphangiomatous polyps of the palatine tonsils were positive for A; (CD31; x200) and B; (CD34; x100).

histologic spectra that polyps with lymphoid, fibrous, and/ or lymphangiomatous features (2,11).

A lymphangiomatous polyp is covered by squamous epithelium (3,10). The polyp's stroma consists of different components that are interchangeable between loose to dense collagenous tissue, adipose tissue, prominent dilated lymphatic channels and lymphoid tissue (1,2). Transformation to malignancy has never been reported in the literature. In our case, the lymphangiomatous polyp contained loose fibrous connective tissue, rich lymphocyte infiltration, and dilated lymphatic channels. Kardon et al found fatty tissue in 9 of 26 cases (2). We did not observe any fat tissue.

Factor–VIII-related antigens including CD31 and CD34 staining are uniformly positive in the dilated lymphatic vessel (5). CD34 is less frequently reactive than CD31 for lymphatic vessels (2). CD31 and CD34 positive endothelial cells were detected both in blood and lymph vessels in our case. The hematologic markers including CD3 and CD20 showed polymorphous infiltrate of the lymphoid cells within the vascular channels and stroma. However, immunohistochemistry is not needed for definitive diagnosis (2,3).

The differential diagnosis includes juvenile angiofibroma, squamous papilloma, and lymphangioma (2,3). Juvenile angiofibromas that typically present with recurrent epistaxis mainly arise in male adolescents. These tumors are benign, locally aggressive, and extremely vascular. Juvenile angiofibromas have variably dense fibrovascular connective tissue containing staghorn-like, thin walled vessels (2). Furthermore, tonsillar lymphangiomatous polyps mostly have a loose fibrous stroma and lymphocytic aggregates. Squamous papilloma is composed of exophytic fronds of thickened, squamous epithelial proliferation that are arranged in multiple layers and lack lymphatics and lymphocytic components (2,10). Generally, lymphangiomas contain prominent dilated lymphovascular channels with proteinaceous fluid and less stroma than lymphangiomatous polyp (2,12). Complete surgical excision of the mass and the tonsil is the curative treatment and recurrence was not reported after surgery (2).

In this paper, an unusual case of lymphangiomatous polyp arising from the tonsil is presented. It is important to diagnose a lymphangiomatous polyp as it clinically resembles a malignant neoplasm. Histopathological evaluation must be performed to establish its benign nature.

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