

CASE REPORT

Lingual tonsillar hypertrophy: a case report

Lingual tonsiller hipertrofi: Olgu sunumu

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The lingual tonsils, members of Waldeyer's ring, are often overlooked even in a thorough head and neck examination. A 39-year old man with one-year history of globus sensation was admitted to our clinic. In his indirect laryngoscopic examination, symmetrical masses of lingual tonsillar tissue were detected extending posteriorly from base of the tongue that was confirmed with magnetic resonance imaging. The patient refused surgical intervention. Acute inflammation and hypertrophy of lingual tonsil can cause life-threatening airway obstruction. In order to draw attention to this frequently unrecognized entity, we present a review of the literature and our case.

Key Words: Asphyxia/pathology/etiology; tongue/pathology/hypertrophy; tonsil/pathology/hypertrophy.

Waldeyer halkasının üyesi olan lingual tonsiller tam bir baş-boyun muayenesinde bile sıklıkla gözden kaçmaktadırlar. Otuz dokuz yaşında bir erkek bir yıldır olan takılma hissi ile kliniğimize başvurdu. İndirek larengoskop muayenesinde simetrik lingual tonsiller farkedildi, kitlelerin manyetik rezonans görüntüleme ile de desteklenerek dil kökünden uzandığı gözlemlendi. Hasta cerrahi müdahaleyi kabul etmedi. Lingual tonsilin akut enflamasyonu ve hipertrofisi hayatı tehdit edici havayolu obstrüksiyonuna sebep verebilir. Sıklıkla farkedilmeyen bu konuya dikkat çekmek amacıyla literatür derlemesini ve olgumuzu sunuyoruz.

Anahtar Sözcükler: Asfiksi/patoloji/etyoloji; dil/patoloji/hipertrofi; tonsil/patoloji/hipertrofi.

The lingual tonsils, normal component of Waldeyer's ring, consist of nonencapsulated lymphoid tissue bordered by the epiglottis posteriorly, the circumvallate papillae anteriorly and the tonsillar pillars on each side of the tongue. The most common abnormalities of the lingual tonsil are hyperplasia and lingual tonsillitis. Sore throat, globus sensation, speech change, dysphagia, otalgia, chronic cough and dyspnea are the common symptoms associated with inflammation of the lingual tonsil.^[1-3] The lingual ton-

sil is often overlooked structure to be responsible for the pharyngeal symptoms. Acute inflammation and hypertrophy of this neglected structure can be the unusual cause of airway obstruction, sleep apnea and recurrent epiglottitis.^[4-9]

CASE REPORT

A 39-year old man was admitted to our clinic with one-year history of a sensation of a lump in his throat. He had undergone septoplasty operation and

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a history of cigarette smoking one-pack day for 10 years.

Indirect laryngoscopic examination demonstrated symmetrical masses of lingual tonsillar tissue extending posteriorly from base of the tongue (Fig 1). There was no palpable lymphadenopathy. His physical examination and hematological test results were normal. The extent of the mass was confirmed with magnetic resonance imaging (Fig 2). In T₁ weighted scan, symmetrical lingual tonsillar hypertrophy on either side of midline was observed. The lesion was isointense with peripheral soft tissue. After intravenous Gadolinium injection no enhancement was seen. The mass did not cause an obliteration in oropharynx and no surgical intervention was attempted.

DISCUSSION

The lingual tonsil consists of lymphoid nodules resting on a basement membrane of fibrous tissue insufficient to be a definite capsule.^[1-3] There is individual variation in the size and disposition of this lymphoid tissue. When enlargement occurs, most commonly two lateral masses are symmetrically placed on either side of the midline divided by the glosso-epiglottic fold.^[2,6]

Lingual tonsillar hypertrophy has occasionally been reported in children,^[3,8] but most commonly occurs in adults particularly in atopic individuals. The etiology is at present unclear. However, it is speculated to be a compensatory mechanism following removal of the palatine tonsils or secondary to a chronic, low-grade infection of the tonsils.^[1-3]

Clinically, hyperplasia of the lingual tonsil may present with symptoms attributable to its anatomical position. Although many patients are asymptomatic, others may complain about a globus sensation, alteration of voice, chronic cough, choking or dyspnea.^[1-4] In our case, globus sensation was caused by hypertrophied lingual tonsils. Acute lingual tonsillitis as a distinct entity, is characterized by sore throat, dysphagia, fever and leukocytosis. Associated complications include airway obstruction, abscess formation, obstructive sleep apnea and recurrent adult epiglottitis.^[5-9]

Diagnosis can be established with a thorough history and physical examination. Indirect mirror laryngoscopy is a quick reliable method, however,

fiberoptic nasopharyngoscopy provides examination of the lingual tonsils in their normal position without artificial tongue protrusion.^[2,5] A plain lateral neck radiography can also aid in the diagnosis.^[10] If identification of a base of tongue mass is suspected, further radiographic studies, such as magnetic resonance imaging or computed tomography can be obtained.^[3,11] We detected lingual tonsillar hypertrophy of the patient with indirect laryngoscopy that was confirmed by magnetic resonance imaging.

Differential diagnosis of enlarged lingual tonsil includes lymphoma, lingual thyroid, granular cell myoblastoma, thyroglossal duct cyst, dermoid cyst.



Fig. 1 - Photograph shows lingual tonsillar hypertrophy as symmetrical masses extending from base of the tongue.



Fig. 2 - A T₁ sagittal plane Gd+ scan shows lingual tonsillar hypertrophy in oropharynx that does not cause obliteration.

The symmetry of the lingual tonsil and its midline division usually simplifies the diagnosis.^[1,2]

The lingual tonsil is susceptible to irritation and inflammation by chemical agents by virtue of its anatomical position. Treatment is directed towards the avoidance of excessive throat clearing and aggravating factors such as dusts, tobacco smoke or chemical irritants as in our case.^[2,6] Acute inflammation usually responds to analgesics, rest, appropriate antibiotic therapy (Lugol solution with sulpham antibiotics) and possibly steroids.^[4,6] Surgical treatment is rarely required and is generally reserved for patients with symptomatic airway obstruction, tonsillar abscess or recurrent infection unresponsive to antibiotic therapy. Dissection, electrocautery and cryotherapy are among the various techniques. CO₂ laser has become a favored modern instrument with immediate hemostasis and reducing the risk of post-operative hemorrhage which is a complication of others.^[2,3,5]

In conclusion, since many patients with lingual tonsillar hypertrophy are asymptomatic, diagnosis requires a high index of suspicion. Chronically enlarged tissue may lead to classic obstructive sleep apnea and acute inflammation may lead to life-threatening obstruction. A complete head and neck examination using indirect laryngoscopy or flexible fiberoptic nasopharyngoscopy is required to evaluate lingual tonsils.

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