

CASE REPORT

Tonsillar lipoma causing difficult intubation: a case report

Entübasyon zorluğuna neden olan tonsiller lipoma: Olgu sunumu

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A 63-year-old woman with confusion and disorientation was referred to the Pulmonary Medicine Department of Afyon Kocatepe University. She was uncooperative and her peripheral oxygen saturation was 75%. She was on diuretic therapy for heart failure. An emergency intubation was planned due to the development of respiratory acidosis and hypoxemia, but the patient could not be intubated. After several attempts, intubation was successful only by digital manipulation of a lateral pharyngeal mass noticed incidentally. She was inadvertently extubated on the third day of intubation and an emergency tracheotomy was performed. Otolaryngological examination revealed a mass originating from the right palatine tonsil, and a computed tomography scan showed a hypodense mass extending from the uvula to the epiglottis. Under general anesthesia, the patient underwent a right tonsillectomy and a lipomatous mass (3.6x3.2x2.2 cm) and the palatine tonsil (3.5x1.1x0.8 cm) were resected. Microscopically, the tumor consisted of mature adipocytes with thin fibrous septae. It should be borne in mind that patients may be unaware of a tonsillar mass that may lead to serious dyspnea and difficult intubation.

Key Words: Intubation, intratracheal; lipoma; tonsillar neoplasms/pathology/surgery.

Konfüzyon ve oryantasyon bozukluğu olan 63 yaşında kadın hasta Afyon Kocatepe Üniversitesi Göğüs Hastalıkları bölümünde incelendi. Kooperasyon kurulamayan hastanın periferik oksijen konsantrasyonu %75 idi. Kalp yetmezliği tanısıyla diüretik tedavisi alıyordu. Respiratuvar asidoz ve hipoksemi nedeniyle acil entübasyon planlanmasına karşın hasta entübe edilemedi. Birkaç denemeden sonra, tesadüfen görülen lateral farengeal kitlenin parmakla ekartasyonu sonrasında entübasyon yapıldı. Entübasyonun üçüncü gününde istenmeden ekstübe edilen hastaya acil trakeotomi girişimi yapıldı. Kulak burun boğaz muayenesinde görülen, sağ palatin tonsilden kaynaklanan kitle, bilgisayarlı tomografide uvuladan epiglottise kadar uzanan hipodens bir kitle olarak görüntüledi. Hastaya genel anestezi altında tonsillektomi uygulandı ve lipom (3.6x3.2x2.2 cm) ve palatin tonsilden (3.5x1.1x0.8 cm) oluşan kitle alındı. Tümör mikroskopik olarak olgun adipozitlerden ve ince fibröz septalardan oluşmaktaydı. Sonuç olarak, hastanın varlığından habersiz olduğu bir tonsiller kitlenin dispne ve entübasyon zorluğuna yol açabileceği akılda tutulmalıdır.

Anahtar Sözcükler: Entübasyon, intratrakeal; lipom; tonsil neoplazileri/patoloji/cerrahi.

Lipomas are benign and slow-growing neoplasms composed of mature fat cells. Lipomatous tumors of the tonsils are extremely rare.^[1] The most common

benign neoplasm of the tonsil is papilloma which might be misdiagnosed as a verrucous carcinoma.^[2] Lipomas generally occur at any subcutaneous loca-

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tion, but their appearance in the upper aerodigestive tract is notably infrequent.^[3] Most lipomas cause no severe symptoms and surgical excision is indicated only for cosmetic reasons. However, they are associated with severe symptoms like suffocation when the hypopharynx is involved.^[4] Moreover, increased thyroid-mental distance and enlarged tonsils causing oropharyngeal crowding have been reported as predictors of difficult intubation.^[5] Benign lingual tonsillar hyperplasia, acute lingual tonsillitis, lingual thyroid, and thyroglossal cysts are known causes of respiratory obstruction contributing to difficult mask ventilation and tracheal intubation.^[6]

In this case report, a patient was presented, who was unaware of a tonsillar mass causing difficult intubation.

CASE REPORT

A 63-year-old morbid obese woman with confusion and disorientation was referred from a public chest hospital to the Pulmonary Medicine Department of Medicine School of Afyon Kocatepe University. On admission, she was incooperative. Acute pneumonia and heart failure were diagnosed. She had respiratory acidosis and hypoxemia. Medical treatment was initiated and an emergency intubation was planned, but initially the patient could not be intubated. After several attempts, intubation was only successful by digital manipulation of a lateral pharyngeal mass discovered incidentally. However, she was inadvertently extubated on the third day of intubation and an emergency tracheotomy was carried out. Otolaryngological examination revealed a mass of the right palatine tonsil, which was responsible for

a history of snoring. Computed tomography (CT) showed a hypodense submucosal mass, 3.5x3.0x2.5 cm in diameter, extending from the uvula to the epiglottis and causing airway narrowing in the oropharynx (Fig. 1). An abdominal CT scan revealed another submucosal lipoma, 14x8.0x8.0 cm in diameter, localized in the antrum caudally. Under general anesthesia, the patient underwent a right tonsillectomy and the lipomatous mass and the enlarged palatine tonsil were resected. The patient underwent surgical operation and the mass with right tonsil were resected orally under general anesthesia (Fig. 2).

Grossly, the tumor had a thin pseudocapsule under the mucosa and measured 3.6x3.2x2.2 cm. The resected palatine tonsil measured 3.5x1.1x0.8 cm (Fig. 3). The cut surface was smooth, yellowish, lipomatous, and relatively homogeneous, with some fibrous septa. Histopathological diagnosis was made as a large tonsillar lipoma (Fig. 4). Microscopically, the tumor consisted of mature adipocytes with thin fibrous and vascular septae.

After surgical excision, the patient was decannulated and her cardiopulmonary symptoms regressed.

DISCUSSION

The histological hallmark of tonsillar tissue is the intimate association of lymphoid tissue with the surface and crypt epithelium consisting of squamous cells. The most common benign tumor is the squamous papilloma, while other benign tumors include adenomas, lipomas, chondromas, hamartomas, and teratomas.^[7] Lipomas are benign tumors composed of mature fat cells and represents by far the most



Fig. 1. The hypodense submucosal mass seen on CT.



Fig. 2. Right tonsillar mass seen during the operation.

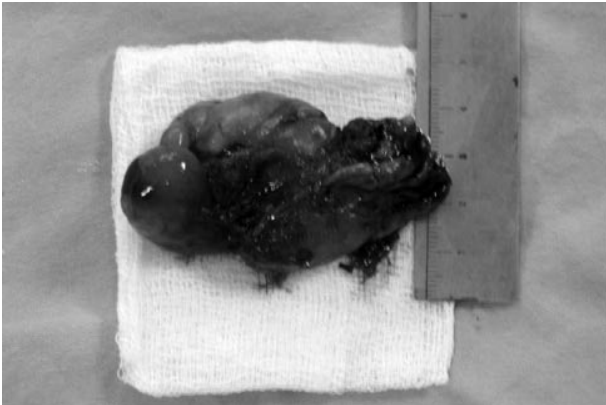


Fig. 3. The right tonsillar lipoma.

common mesenchymal neoplasm in the body.^[8] Although they may arise from anywhere having adipose tissue in the body, the incidence of oral lipomas among all benign neoplasms of the oral cavity is as low as 2.2%.^[9] They can be classified as simple lipoma or its variants, such as fibrolipomas, spindle cell lipomas, intramuscular or infiltrating lipomas, angioliipomas, salivary gland lipomas, pleomorphic lipomas, myxoid lipomas, and atypical lipomas.^[10] In more than half of these cases, the buccal sulcus is involved. The tongue, floor of the mouth, and the lips are the areas next most affected, followed by the lower pole of the tonsil, hypopharyngeal wall, and aryepiglottic fold. The occurrence of a lipoma in the tonsil may appear intriguing, due to the histologic features of the tonsil.^[1] The etiology of lipomas is still unclear, although repeated trauma may be a possible initiating factor. Fregnani et al.^[11] reported the male-to-female ratio as 1:1.5 for oral cavity lipomas. In our case, the patient was a very overweight woman and she had another submucosal lipoma in her antrum.

Clinical manifestations associated with a tonsillar mass are usually minimal, unless the pedicle is large enough to cause gagging and coughing. Polypoid tumors of the tonsil may manifest symptoms such as foreign body sensation, voice change, dysphagia, soreness, or excessive salivation. Furthermore, they may cause respiratory obstruction when they reach a significant size.^[1] In our case, the only symptom was snoring and the mass seemed to increase the clinical severity of cardiopulmonary disease. It was interesting that the patient was unaware of her tonsillar mass causing difficult intubation. Compared with lipomas in the oral cavity, lipomas in the pharynx may not be easily recognizable. Harada et al.^[12] reported an asymptomatic case of polypoid

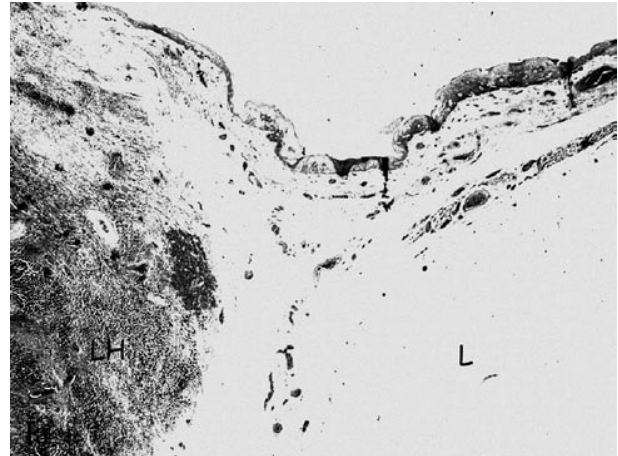


Fig. 4. Microscopically, the tumor consisted of mature adipocytes with thin fibrous and vascular septae. L: Lipoma; LH: Lymphoid cells (H-E x 40).

lipoma of the palatine tonsil, measuring 1.6x1.5x1.3 cm, in a 44-year-old Japanese woman. Persaud et al.^[13] presented a 73-year-old man with a pendulous mass arising from the posterior hypopharyngeal wall and protruding from his mouth in emergency department. A supraepiglottic mass such as unnoticed lingual tonsillar hyperplasia was reported as an unusual cause of unexpected difficulties in both mask ventilation and tracheal intubation.^[14]

Albeit extremely rare, malignant change in lipomas was described.^[15] Saddik et al.^[16] reported liposarcoma of the tonsillar fossa which was underdiagnosed. Therefore, histopathological evaluation of this kind of tumor is very important. Treatment of tonsillar lipoma is surgical excision and tonsillectomy. The symptoms of our patient regressed after surgical removal and she could be decannulated.

This case highlights the need to consider tonsillar lipoma in the differential diagnosis of difficult mask ventilation and tracheal intubation.

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