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Case Report

Lipoma of the Tonsil: Managed with Coblation Assisted Tonsillectomy: A Rare Case Report

Pankaj Goyal[1]*, Kishan Kumawat[1] and Nirupama Kothari[2]

[1]*Apollo ENT Hospital, Pal Road, Jodhpur, Rajasthan, India*

[2]*Sterling Accuris Diagnostics, Saras Dairy Road, Jodhpur, Rajasthan, India*

***Corresponding Author:** Pankaj Goyal, Apollo ENT Hospital, Pal Road, Jodhpur, Rajasthan, India.

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Abstract

The most frequent benign soft tissue tumours, lipomas are usually made up of mature adipose tissue. Lipomas are rare in the oropharynx, despite the fact that they can arise in many different parts of the body. This case report illustrates a rare instance of a tonsillar lipoma and emphasises the significance of considering lipomas as a differential diagnosis in patients with tonsillar masses. In order to provide the best possible patient care, it is important to correctly identify and manage tonsillar lipomas, as seen in this example. This case involves a 36-year-old woman who has an oval lump in her right palatine tonsil that is arising from superior pole. Tonsillar lipoma was the pathologic diagnosis following her coblation-assisted tonsillectomy.

Keywords: Lipoma; Tonsil; Oropharynx; Benign Tumour; Coblation; Tonsillectomy

Introduction

Lipomas are benign, slow-growing neoplasms made up of an unusual assemblage of mature adipose cells. They typically develop in subcutaneous tissues, although very rarely in the aerodigestive tract. However, benign tonsil tumours are uncommon.

Around 25% of tonsil neoplasms are benign, whereas 75% are malignant [1].

The majority of benign tonsillar tumours are squamous papillomas or lymphangiomas.

Only 15% of all lipomas, which are the most prevalent mesenchymal tumours in the body and typically develop in the parotid gland, oral cavity, hypopharynx, retropharynx, and larynx, occur in the head and neck [1].

According to histology, the adipocytes are typically absent from the tonsillar framework in normal tissue. Only few examples of tonsillar lipoma have been identified in the English literature, as far as we are aware [2-7]. Oropharynx-related lipomas are uncommon. They typically manifest as a lump in the mouth or throat, and they may impair the activities of the aerodigestive tract. A tonsillar lipoma in a 36-year-old female patient is the subject of this case report, which details the presentation, diagnosis, and treatment of the condition.

Case Report

A 36-year-old female patient complained of a painless tonsillar tumour on the right side when she arrived at the Apollo ENT hospital in Jodhpur, Rajasthan. She had complained about a foreign body sensation in her throat. The tumour had risen in size over the previous six months, but there had been no discomfort, dysphagia,

or other systemic symptoms. The patient had no significant medical history or family history of similar masses. The patient denied having any addiction. Physical examination revealed a non-tender, soft, and moveable mass emerging from the upper pole of the right tonsillar fossa (Figure 1). There were no signs of cervical lymphadenopathy.

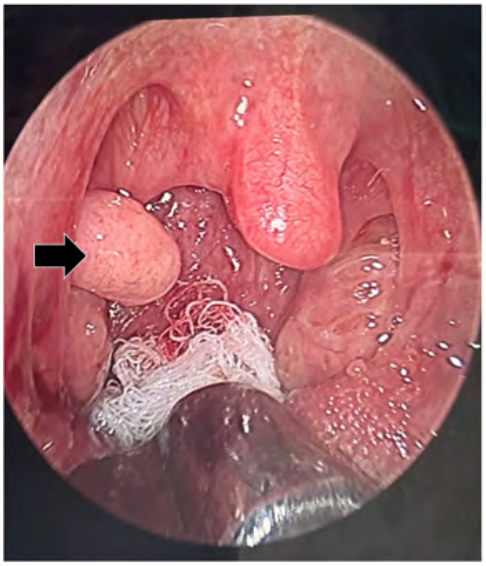


Figure 1: Intraoperative picture showing A large lobulated polypoidal mass seen arising from the superior pole of the right tonsillar fossa. (marked with black arrow).

Diagnostic assessment

To evaluate the tonsillar tumour, the patient underwent a thorough diagnostic workup. The initial investigations included a full blood count and a throat swab for culture and sensitivity; both results were within normal ranges. During a contrast-enhanced computed tomography (CT) scan (Figure 2) of the neck, a well-circumscribed, fatty lump inside the right tonsil compatible with a lipoma was discovered. There was no evidence of lymphadenopathy or infiltration surrounding the tumour.

Treatment and outcome

The patient's symptoms, physical examination findings, and imaging findings were all attributed to a tonsillar lipoma. The nature of the disease and the need for surgical intervention due to

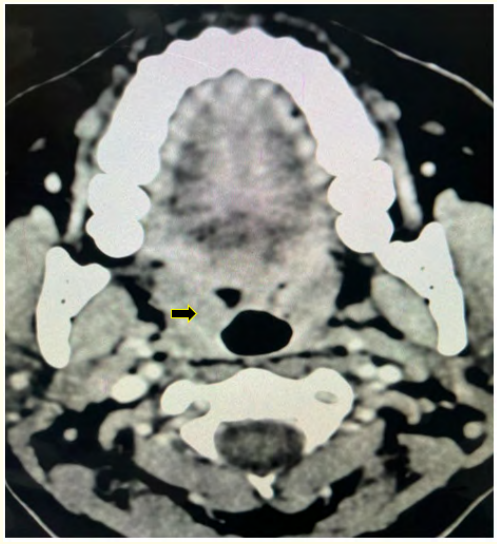


Figure 2: CT (computed tomography) scan showing a well-circumscribed, soft tissue density inside the right tonsil compatible with a lipoma.

the tumor's continuous expansion were discussed with the patient during counselling. Under general anaesthesia, a tonsillectomy with coblation assistance and complete lipoma excision was performed (Figure 3 and 4). The surgical phase was uneventful, and the patient reported complete remission of the tonsillar tumour and associated symptoms. A histological analysis (Figure 5A and B) that revealed mature adipose tissue devoid of any indications of atypia or malignancy confirmed the diagnosis of a lipoma.

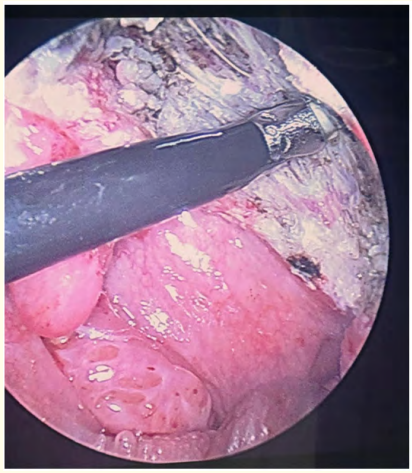


Figure 3: Intraoperative picture showing right tonsillectomy with using coblation technique.

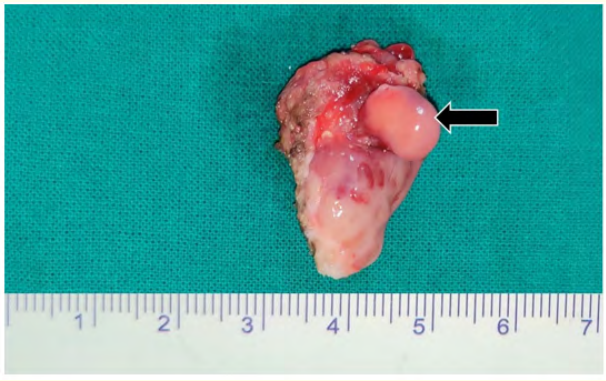
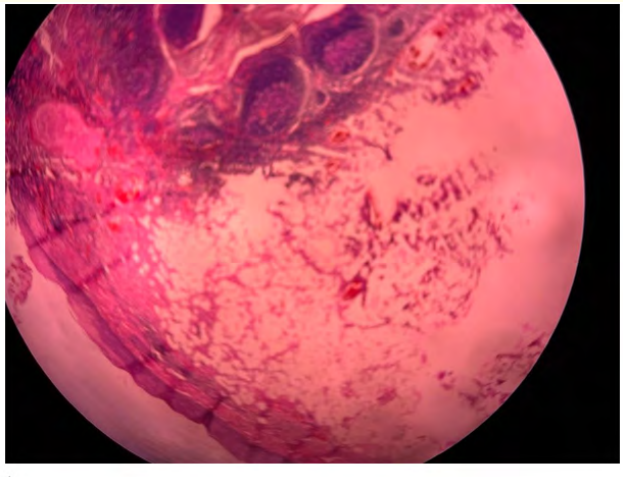
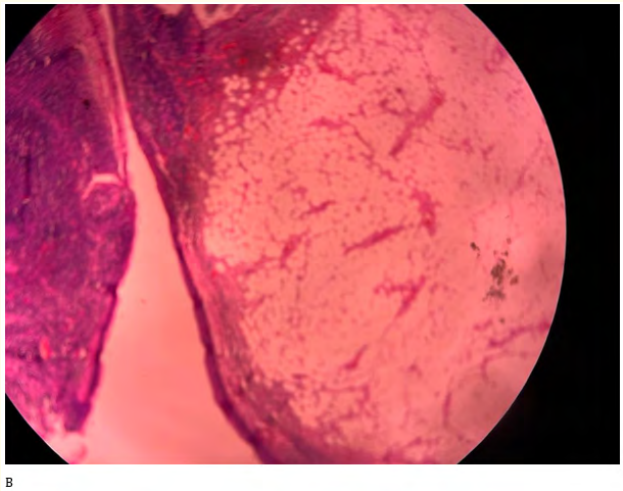


Figure 4: Main surgical specimen showing right tonsil tissue with pedunculated lesion.



A.



B

Figure 5: (A and B) Sections show tonsillar tissue with hyperplastic lymphoid follicles some crypts show neutrophilic infiltration. The small nodular lesion is comprised of mature fatty tissue with few blood vessels, lesion covered by squamous epithelium. No atypia seen.

Discussion

Lipomas are benign tumors composed of mature fat cells. They occur frequently in subcutaneous tissue and are the most common mesenchymal neoplasms in the body. Most of them grow insidiously and cause few problems other than those of a localized mass. Benign tumours of the palatine tonsil are uncommon and usually take the appearance of a polyp. Squamous papillomas, lymphangiectatic fibrous polyp, fibrovascular polyp, haemangioma, and lipoma are the names given to polypoidal lesions of the tonsil based on the major tissue component detected on histological investigation. Squamous cell papillomas are the most prevalent type of benign polypoidal tonsil tumours, followed by lymphangiomas [8].

Tonsil lipomas are incredibly uncommon lesions. Tonsillar lipomas have an unknown aetiology. Theoretical predisposing factors include trauma and persistent irritability. None of these are, however, wholly accepted. Histologically, adipocytes are typically absent from the normal tonsillar framework. Due to the absence of additional germ cell components in the tumour, Begin and Frenkiel concluded that tonsillar lipoma most likely represents a benign neoplastic development rather than a hamartomatous deformity [2]. Microscopic analysis of our case showed a clump of mature adipocytes encircled by fibrous tissue and covered by stratified non-keratinizing squamous cell epithelium, but no other germ cell components. Our results appear to be consistent with their theory.

It normally takes time for symptomatic lesions to develop since they are subjected to gravity and constant swallowing, which causes the development of pedunculated polypoidal lesions. Tonsillar lipomas can show as cough [9], foreign body sensation [19,21-23], voice change [18], airway obstruction [20], and even angina [23] despite the fact that they are typically detected accidentally [2,10,11-17].

Airway obstruction from tonsillar lipomas is a possibility, so they need to be treated quickly.

Although they can also develop from the superior pole and peritonsillar region, tonsillar lipomas typically develop from the tonsil's body.

Most tonsillar lipomas develop slowly and rarely cause issues other than those associated with a localised mass. They might not show any symptoms at all or show up as soreness, coughing, or a feeling of a foreign body.

Oropharyngeal tumours, however, should be kept in mind as they have the potential to restrict the airway if they grow sufficiently. Tonsillar tumours continue to be difficult to diagnose for surgeons.

Most tonsillar lipomas are described in the literature as having a polypoid tumour with a narrow pedicle connecting it to a palatine tonsil [2,4,6,7]. Tsunoda and Benson-Mitchell., *et al*. on the other hand, described two cases with peritonsillar space lipoma [14,24].

In contrast to earlier studies, our case involved a lipoma in the tonsillar tissue at superior pole. Tonsillar lipoma may be effectively managed with a straightforward tonsillectomy. Although Masson., *et al*. reported a case of hypopharyngeal lipoma with local recurrence or conjunction with new lipoma elsewhere in the hypopharynx after resection, recurrence is uncommon and the prognosis is favourable [25].

With the patient under general anaesthesia, we decided to perform a unilateral tonsillectomy with excision, as suggested by other investigations [6,24]. A significant margin of healthy tissue was preserved after the lipoma was removed thanks to the tonsillectomy. Excision of the tumour and its stalk have been done by others while the patient was given local anaesthesia [2,4]. We advise tonsillectomy with excision of the mass as the only course of treatment since tonsillar lipomas have not been reported to recur.

Conclusion

Even though tonsillar lipomas are extremely uncommon, they should be taken into account when making a differential diagnosis of tonsillar masses. Correct diagnosis, symptom treatment, and the avoidance of potential consequences all depend on early detection and adequate management, including surgical excision. This case report focuses on the significance of fostering early intervention for better patient outcomes, improving understanding regarding this rare entity's clinical appearance, diagnosis, and therapy, and increasing awareness of it.

Compliance with Ethical Standards

The procedure performed in this case report was in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Funding

This study is not funded by any resources.

Conflict of Interest

The author (s) declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this paper.

Ethical Approval

For the purpose of publishing this case report, the patient's written informed consent was obtained.

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