

Lipoma in the peri-tonsillar space

ATSUNOBU TSUNODA, M.D.

Abstract

Lipomas in the head and neck region usually occur in the immediate subcutaneous tissue, and only rarely in the upper aerodigestive tract. We report here a case of a 58-year-old female with a lipoma in the peri-tonsillar space. The tumour originated from the left peri-tonsillar space over the palate tonsil and partly protruded into the oral cavity. MRI (magnetic resonance imaging) showed not only the accurate location of the tumour but also suggested its pathology. To our knowledge, a lipoma in the peri-tonsillar space is quite rare and MRI is useful in its diagnosis.

Key words: Head and neck neoplasms; Lipoma; Magnetic resonance imaging

Introduction

Although a lipoma is one of the most common benign neoplasms, it usually occurs in subcutaneous tissues and only rarely occurs in the deep neck or aero-digestive tract. However, the incidence of oral lipomas has been reported to vary from zero to 2.2 per cent as a percentage of lipomas of the whole body, with the incidence seeming to increase in later reports (Hatziotis, 1971; deVisscher, 1982). An oral lipoma mainly occurs in the cheek and tongue and its main symptom is usually a yellowish solitary mass. Some larger ones may cause discomfort during speech and mastication (Hatziotis, 1971). However, it is associated with severe symptoms like suffocation when it occurs in the hypopharynx (Masson *et al.*, 1978).

Case report

A 58-year-old female attended our department with an oral tumour. She had been aware of the oral swelling for 10 years previously; however, it grew larger and protruded into the oral cavity gradually over three months. The patient complained of mild dysphasia, but no other symptoms were present. A soft, smooth and yellowish tumour was observed in the inferior margin of the left soft palate (Figure 1).

MRI revealed a tumour situated in the para-pharyngeal or peri-tonsillar space. The medial part of the tumour protruded into the oral cavity and the pharynx. The tumour showed a high signal on T₁-weighted images (Figures 2 and 3). From the oral examination and MRI findings, it was thought to be a lipoma or a lipogenous tumour.

Surgical resection was planned using the same technique as for tonsillectomy. Under oral intubated general anaesthesia, an arcuate incision along the palato-pharyngeal arch was made. The tumour was under the mucosa, its surface was soft, smooth and hypo-vascular. Removal of the tumour was performed with blunt dissection and haemorrhage was scant. The tumour was well-defined within a thin membrane, and there was no adhesion between the tumour and the adjacent tissues. Also no inflammation was present. There was no invasion into the tonsil and muscles (palatal-pharyngeal muscle or uvulo-pharyngeal muscle). The tumour was found to originate from the peri-tonsillar space over the left palate tonsil. It was 4 × 3 × 3 cm in

the peri-tonsillar portion and 2 × 2 × 1 cm in the pharyngeal portion; its total weight was 12.2 g (Figure 4). The diagnosis of lipoma was confirmed by microscopic examination (Figure 5).

After surgery, the patient no longer complained of dysphasia. After six months, MRI was performed and revealed no recurrence of the lipoma.

Discussion

Lipomas may arise from adipose tissue anywhere in the body.

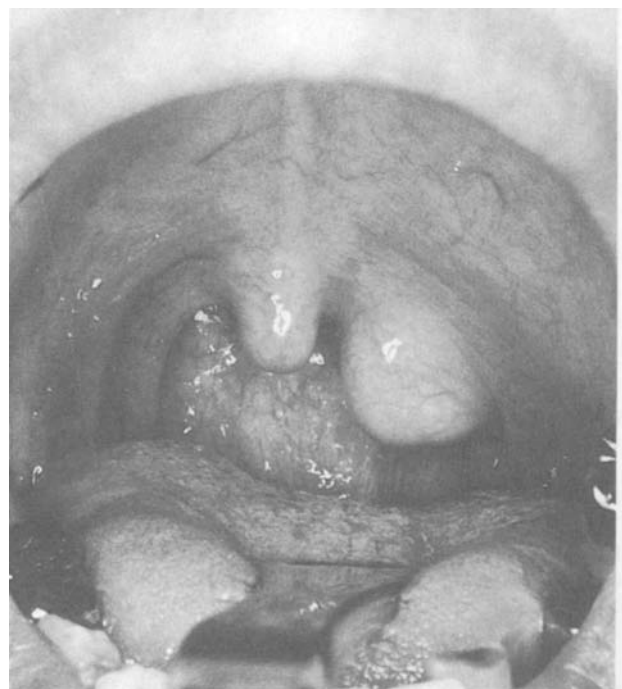


FIG. 1

Showing a yellowish tumour protruding into the pharynx and oral cavity.



FIG. 2

Axial MRI image: tumour shows high signal in T_1 -weighted image.



FIG. 3

Coronal MRI image: tumour situated over the left palate tonsil, and medial to the pterygoid muscle.

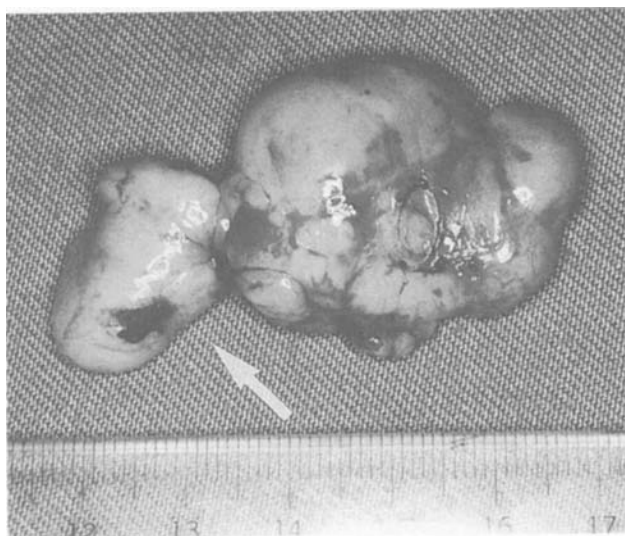


FIG. 4

Lesion excised from peri-tonsillar space: it is encapsulated by a thin membrane. Arrow indicates the pharyngeal portion of the tumour.

However, they usually occur in immediate subcutaneous tissue. They are not commonly found in the aero-digestive tract, but have been previously reported in the oral cavity, hypopharynx and nasopharynx (Hatziotis, 1971; Masson *et al.*, 1978; deVisscher, 1982; Oddie and Applebaum, 1982; Cottrell *et al.*, 1993).

Compared with lipomas in the pharynx, lipomas in the oral cavity are easily recognizable. They mainly occur in the cheeks, buccal sulcus and tongue but only rarely in the palate, gingiva and retromolar area. Although the aetiology of lipomas is still unclear, and there have been no reports of lipomas initiated by trauma, these findings suggest that repeated trauma is a possible initiating factor (deVisscher, 1982). Adipose tissue in the peri-tonsillar space is scant and mechanical stimulation is relatively mild when compared to other areas of the upper digestive tract. In this respect, the present case is rare, and in fact, there are no

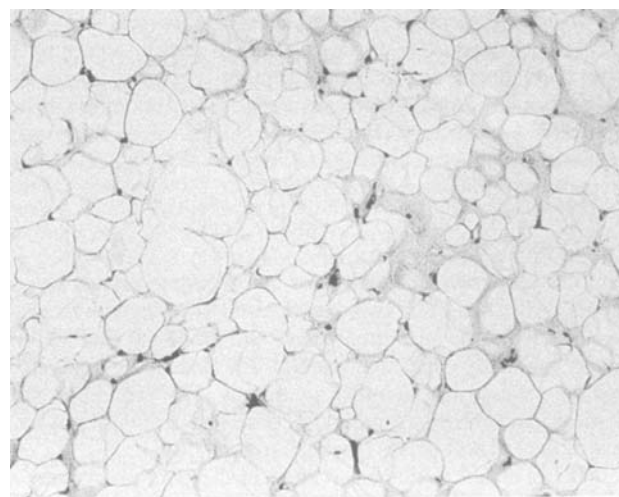


FIG. 5

Microscopic findings: tumour composed of adult, mature, adipose tissue. (H & E; $\times 100$).

previous reports of lipomas originating from the peri-tonsillar space.

The diagnosis of a lipoma in this region is not easy, due to its rarity as abscess is thought to be more common. However, as in this case, lipoma is rarely diagnosed without a history of tonsillitis or peri-tonsillitis. When surgical resection and a histological diagnosis are to be carried out, accurate information about the tumour is necessary before the operation, especially, about its location, extension and relationship to adjacent organs (e.g. carotid artery).

MRI has a higher resolution particularly in soft tissues. Lipoma produces a high signal on T_1 -weighted MRI images and shows the same signal as subcutaneous fat on all MRI sequences (Cottrell *et al.*, 1993; Yamashita *et al.*, 1993). In the present case, MRI revealed the location and pathology of the tumour exactly and these images facilitated the planning and procedure of the

operation. However, movement of the tissue produces a noise during imaging. Although such noises interfere with the exact diagnosis, it is difficult to avoid noise completely during imaging of the oral cavity and pharynx due to swallowing and respiration. Careful imaging and cooperation of the patient are needed to obtain clear and accurate MRI images of these areas.

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Address for correspondence:

Dr A. Tsunoda,
Department of Otolaryngology,
Toride Kyodo General Hospital,
5901-1 Terada,
Toride-Shi,
Ibaraki,
302 Japan.

Fax: 81 (Japan) 294-74-2721, or 3-3805-3387