

Clinical Case

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Parotid Gland Lipoma: An Unusual Entity

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Rezumat

Lipom glandă parotidă: o entitate neobișnuită

Apariția lipoamelor la glanda parotidă este extrem de rară și imposibil de diferențiat clinic. Un caz de lipom este descris mai jos, tratat cu succes prin parotidectomie superficială. Pacient de 57 de ani, cu o formațiune bine definită, provenind probabil din parotida dreaptă, a fost admis pentru investigații în unitatea noastră; inițial i s-a făcut o ecografie, iar apoi un RMN. Ambele investigații imagistice au relevat o tumoră lipomatoasă benignă și pacientul a fost supus unei parotidectomii superficiale fără a exista complicații. Deși țesutul adipos este o componentă naturală a glandei parotide, apariția lipoamelor este neobișnuită. Incidența leziunilor glandei parotide în instituția noastră este de aproximativ 1% (0.6-4.4%), iar cel mai des întâlnit mecanism patofiziologic este traumatismul. Evaluarea imagistică tomografică este foarte precisă în diagnosticul preoperator și înfășișarea pacientului este indicația pentru intervenția chirurgicală. Alte simptome mai deosebite pot pune în pericol stabilirea corectă a diagnosticului de lipom la glanda parotidă. Ca de obicei, excizia chirurgicală trebuie să respecte amplasarea nervilor faciali și ramurile acestora.

Cuvinte cheie: glanda parotidă, lipom, parotidectomie superficială

Abstract

The occurrence of lipomas in the parotid gland is extremely rare, and impossible to differentiate clinically. A case of this bizarre entity is reported herein, which was treated successfully with superficial parotidectomy. A 57-year-old man with a well-circumscribed, rubbery mass, probably arising from the right parotid gland was investigated in our hospital initially with ultrasound scan, and finally with MRI-scan. Both imaging modalities implied a benign lipomatous tumor and the patient underwent an uneventful superficial parotidectomy. Although adipose tissue is a natural component of parotid glands, lipomas arising in the gland are very unusual. The entity's incidence is about 1% (0.6-4.4%) of parotid gland mass lesions and history of previous trauma in the area is the most common pathophysiological mechanism described. Tomographic imaging modalities are very accurate in preoperative diagnosis and cosmetic appearance is the usual indication for surgical intervention. Any particular symptoms jeopardize clinically the diagnosis of parotid lipoma. As always, surgical excision should respect the facial nerve and branches.

Key words: parotid gland, lipoma, superficial parotidectomy

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Introduction

Lipomas are common mesenchymal tumors consisting of fat, although the occurrence of such in the parotid gland is extremely rare (1). We report a case of intra-parotid lipoma in a 57-year-old man, presenting clinically as salivary gland neoplasm and treated effectively with superficial parotidectomy.

Case report

A 57-year-old man presented with a pre-auricular palpable mass known for about 4 years. His medical history included only alcohol abuse, while no injury of pre-auricular region was mentioned. On clinical examination a 5 cm well-circumscribed, rubbery mass was revealed probably arising from the right parotid gland. The patient did not complain about pain, heaviness or other symptoms. Ultrasound scan confirmed the clinical impression and described a 5 cm hypoechoic mass. Magnetic resonance imaging (MRI) scan also showed a well-circumscribed mass, 4 x 3.7 x 3.4 cm in size, with fibrous septa surrounded by thin fibrous capsule (Fig. 1). The imaging characteristics implied a lipomatous, benign tumor.

The patient underwent a typical superficial parotidectomy. The postoperative course was uneventful.

Histopathological examination concluded that the mass was a parotid gland lipoma. Macroscopically, it was a circumscribed, yellowish mass, measuring 5.5 x 4 x 3.5 cm and weighting about 35 grams (Fig. 2). Microscopically, the mass was consisted of lobules of mature adipose tissue, separated by septa of connective tissue, and surrounded by a thin fibrous capsule (Fig. 3).

The patient remains disease free 6 months later.

Discussion

Lipomas of the parotid gland are extremely rare and usually are not included in the differential diagnosis of parotid masses, despite the fact that adipose tissue is present normally in the gland. From the few studies reporting lipomas in the parotid gland, the incidence is about 1% (0.6-4.4%) of the whole spectrum of parotid gland mass lesions (2, 3). In the largest series of parotid lipomatous lesions, middle age men are affected 70% of times (1). The main reported causes for this benign entity are: history of trauma, positive family history for lipomas, obesity, diabetes mellitus, previous head/neck irradiation, corticosteroid therapy (4). Previous trauma theory claims that hematoma formation leads to fat necrosis and subsequently to the encapsulated entity of lipoma (5). In many cases, like ours, there is no clear evidence of previous trauma incident.

Clinically, these masses do not cause any particular symptoms beyond cosmetic disturbances to the patient, and any suspicion of facial nerve compression and palsy, although reported, should raise concerns about possible malignancy (6). However, large masses have been reported to literature, displacing the tonsils, larynx and lateral pharyngeal wall,

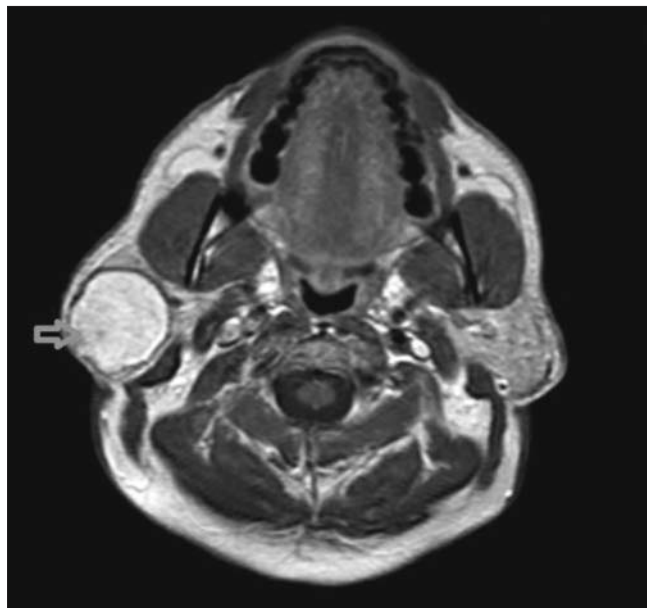


Figure 1. MRI image of parotid gland lipoma (arrow)

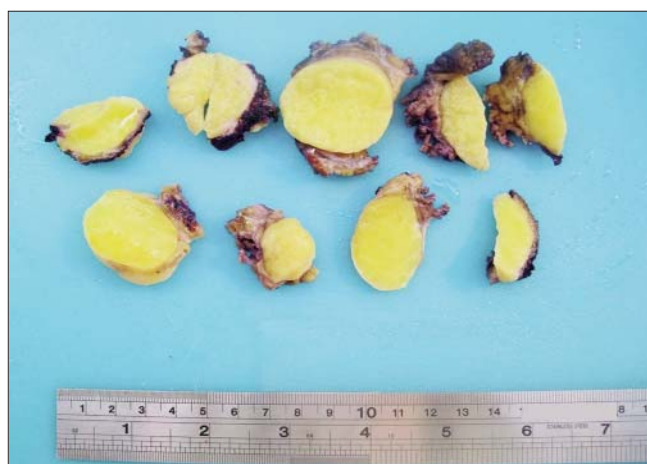


Figure 2. Gross section of parotid tumor showing in characteristic yellowish colour consistent with lipomatous tumor

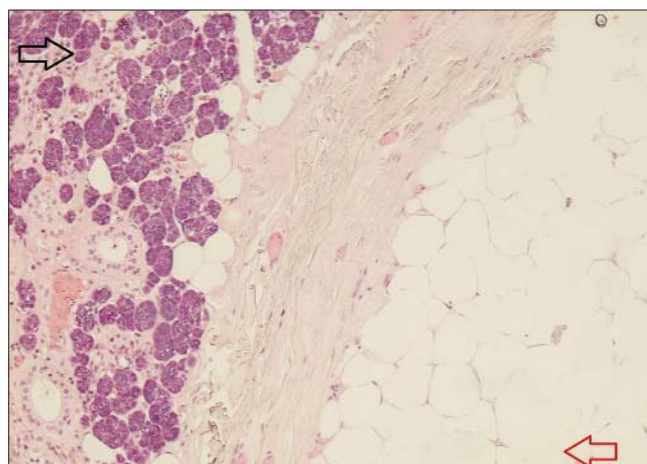


Figure 3. Histological section of parotid gland lipoma [haematoxylin – eosin x 200] (black arrow: parotid gland tissue, gray arrow: lipomatous tissue)

especially when the parotid lipoma is located in the deep parotid lobe.

Imaging modalities and especially ultrasound scan and MRI scan can achieve high accuracy in the preoperative diagnosis (7), giving valuable information for the malignant potential of the lesion and the exact location, which helps for the surgical strategy design. Moreover, computed tomography (CT) scan can detect the fatty tissue reliably, due to lower attenuation values in Hounsfield units measurements, compared to the adjacent normal parotid tissue. On the other hand fine needle aspiration (FNA) is not useful for parotid gland lipomas, giving insufficient answers and should be avoided. Histopathologically and according to the amount and distribution of adipose tissue and epithelial component, tumours are categorized into three groups: ordinary lipoma, which is identical to soft tissue lipoma, oncocytic lipoadenoma, which consists of oncocytes with variable fat, and nononcocytic sialolipoma. The last is composed of lobular fatty tissue ($\geq 70\%$) along with normal salivary tissue (8). The presence of a thin fibrous capsule around the lipoma is essential to distinguish the lesion from a simple fat aggregation.

Surgical excision is the mainstay of treatment. During surgical exploration, the facial nerve is initially identified and followed as usual to the nerve branches, as far as needed for complete tumor excision. Intraoperatively, the colour of the lipoma is the same with the surrounding normal parenchyma, making sometimes the nerve identification a deceptive task. Commonest postoperative complications arise from facial nerve injuries, and sometimes the tumour itself can compress the nerve and may give symptoms related to that. Recurrent disease is very seldom and adequate surgical excision is sufficient for the treatment of parotid gland lipomas (9).

Conclusions

In conclusion, parotid lipoma is a benign parotid pathology, which should be considered in the differential diagnosis of gland's mass lesions and clinical suspicion combined with

appropriate imaging, without the aid of preoperative biopsy leads to efficient diagnosis. Meticulous surgical excision should be performed to avoid disturbing adverse events.

Conflicts of interest and source of funding

Authors have no competing interests to declare.

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