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## Lipoma in Superficial and Deep Lobes of Parotid Gland: A Case Report

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### Abstract

**Introduction:** Lipomas among the most common benign neoplasms and rarely observed in parotid glands. We present a new case of lipoma in the superficial and deep lobes of the right parotid gland.

**Case report:** A 52-year-old woman with painless and progressive inflation in the right preauricular region was referred to us. Computed Tomography scanning showed a hypodense area 5.2×4 cm in dimension in the right parotid gland region, and the facial nerve was fully exposed. The patient underwent parotidectomy, during which extensive removal of the mass was done. The pathology report cited a yellow-colored fatty tissue mass, 5×4×2 in dimension. In the microscopic report, lipoma of the parotid gland was seen. **Conclusion:** Determination of the exact tumor location is very important in the surgical approach in such cases. To our knowledge, this case seems to be an extremely rare case of lipoma in the superficial and deep lobes of the parotid [GMJ. 2012;1(2):88-90]

**Keywords:** Lipoma; Parotid; Benign Tumors

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### Introduction

Lipomas are among the most common benign neoplasms and are rarely observed in parotid glands. They also comprise 1–3% of all parotid neoplasms.<sup>(1)</sup> To our knowledge, lipomas in the deep lobe are extremely rare.<sup>(2)</sup> This report, written under the direct supervision of the Ethics Committee of Ali Ben Abitaleb Medical School, presents a new case of lipoma in the superficial and deep lobes of the right parotid gland.

### Case report

A 52-year-old woman with painless and progressive inflation in the right preauricular region was referred for evaluation to the ENT Department of Shahid Sadooghi Hospital in Yazd. The patient did not have any history of fever, chills, hearing problems, weight loss, and damage and infection at the site of the lesion. On examination, the mass, 10×7 cm

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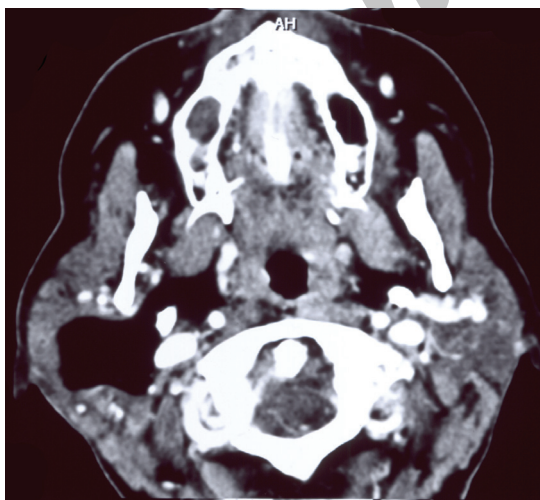
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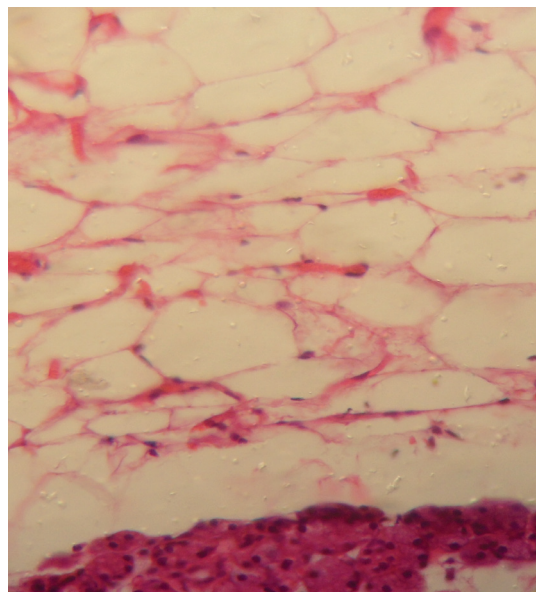
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in dimension, was palpated at the right mandibular angle. The mass was soft, lobulated, mobile, and without pus. On oropharyngeal examination, submandibular and sublingual salivary glands, salivary secretion, nasal mucosa, and parotid duct openings were normal on both sides, and there was no obvious cervical lymphadenopathy. Computed Tomography (CT) showed a hypodense area, 5.2×4 cm in size, in the right parotid gland region (Figure 1), which originated from the superficial lobe and extended to the deep lobe with deviated lateral carotid artery branches. In addition, the facial nerve was fully exposed.

The patient underwent parotidectomy, during which the inferior facial nerve branches were separated from the main mass carefully. Furthermore, extensive removal of the mass was carried out for this patient, and the mass was sent for examination to the pathologist. The pathology report revealed a yellow-colored fatty tissue mass of 5×4×2 cm. Microscopic examination revealed adipocytes, and no malignant findings were identified (Figure 2). Temporary facial nerve paralysis was seen after surgery, which disappeared completely after 2 weeks. The patient experienced no recurrence after resection for 3 months but complained of mild pain in the right jaw angle.



**Figure 1.** Axial Computed Tomography scan, showing the right superficial and deep lobe parotid gland lipoma



**Figure 2.** Microscopic image of the parotid gland lipoma, showing mature fat cell.

## Discussion

Lipomas are rarely seen in parotid glands. (3) To the best of our knowledge, lipomas in the deep lobe are extremely rare and only 10 cases have been reported to date. (2) Because of their very low prevalence, they are often not considered as the main differential diagnosis of parotid neoplasm. What is more, lipomas in the parotid gland are very similar to mature adipose tissue histologically, and only the fibrous capsule makes them different from other fatty aggregations. (4) Lipomas in the parotid gland are often asymptomatic, but if they grow adequately, they can compress the surrounding tissue and produce an obvious tenderness. The case reported in this study had tenderness palpation on her lesion before surgery, which decreased after resection. Lipoma in this case was diagnosed first using CT scan, while in some similar studies, high-resolution CT has been advised. (5) Nevertheless, some other studies have mentioned higher accuracy of CT scan in the primary diagnosis of lipomas in the parotid glands and Magnetic Resonance Imaging (MRI) in detecting extraparotid from intraparotid lipomas.

As is mentioned in the case report, temporary facial nerve paralysis was observed after surgery. In the previous reports, the incidence

rate of facial nerve dysfunction was different from 8.2 to 65% after surgery of benign parotid tumors, and the incidence rate in lipomas in the deep lobe of the parotid was about 80%.<sup>3</sup> The case reported in this study underwent parotidectomy. However, surgical management of lipomas in the parotid gland is controversial, according to the surveys carried out. Some researchers recommend superficial parotidectomy, while others suggest enucleation of well-capsulated masses.

### Conclusion

In this report, a rare case of lipoma in the superficial and deep lobe of the parotid gland was reported. In such cases, determination of

the exact tumor location is very important in the surgical approach. To our knowledge, this case seems to be an extremely rare case of lipoma in the superficial and deep lobe of the parotid.

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