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UNCOMMON PRESENTATION OF LIPOMAS IN THE HEAD AND NECK REGION: A CASE SERIES

Otorhinolaryngology

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KEYWORDS

Lipoma; Head and neck; Angiolipoma; Parotid lipoma; Parapharyngeal lipoma; Case series

INTRODUCTION

Lipomas are slow-growing, benign tumors composed of mature adipocytes and account for 16% to 50% of all benign soft tissue tumors in the human body [1]. They typically present as soft, mobile, painless subcutaneous masses and are most frequently located in the trunk and proximal extremities. Only about 13% of lipomas occur in the head and neck region [2], where they can occasionally present in deeper or functionally critical locations such as the parotid gland, oral cavity, supraclavicular region, parapharyngeal space, and sublingual space. These unusual presentations may mimic other pathologies, including neoplasms or cystic lesions, leading to diagnostic challenges.

This case series describes six patients with lipomas presenting in uncommon locations within the head and neck. Through these cases, we aim to explore the diagnostic approach, surgical challenges, and outcomes associated with such atypical presentations.

CASE PRESENTATION:

Case 1 – Sublingual Lipoma

A 35-year-old woman presented with a painless, progressive swelling below the left jawline for three months. Clinical examination revealed a 4×5 cm soft, mobile mass in the left sublingual region. MRI of the neck showed a well-circumscribed, lobulated, fat-intensity lesion. The lesion was excised via a transoral approach under general anesthesia. Histopathological examination confirmed a lipoma. Postoperative recovery was uneventful.

Fig – 1 : Swelling in the left sublingual region

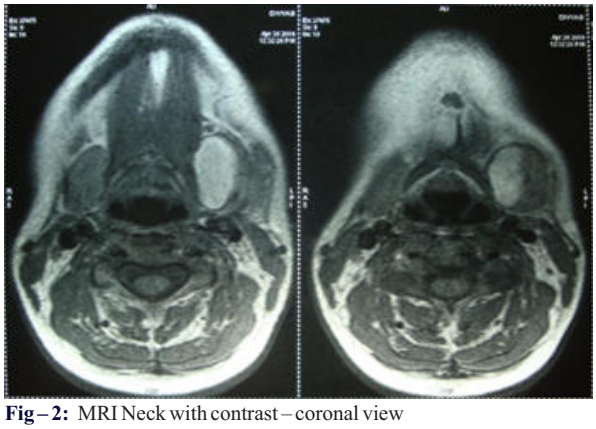

Fig – 2: MRI Neck with contrast – coronal view

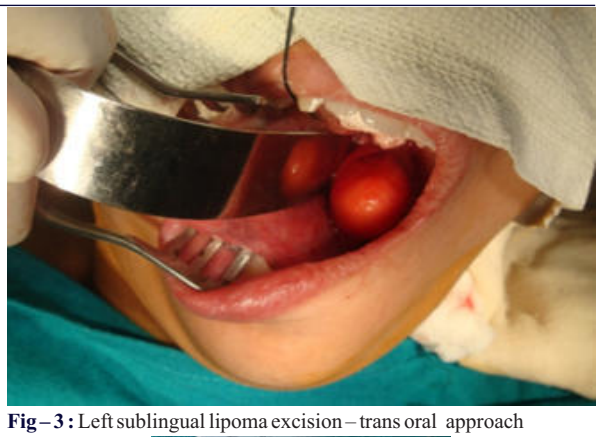

Fig – 3 : Left sublingual lipoma excision – trans oral approach

Fig – 4 : Excised specimen

Case 2 – Parotid Region Lipoma

A 41-year-old man reported a painless right facial swelling persisting for three years. Examination showed a 6×5 cm mass in the right parotid region. MRI revealed a fat-intensity lesion involving the superficial lobe of the parotid gland. Surgical excision via a transcervical approach was performed. Histopathology confirmed a mature lipoma. Facial nerve function was preserved, and the patient had an excellent cosmetic result.

Fig – 5: Swelling in the parotid region

Fig – 6 : MRI of neck – Axial view

Fig – 7: MRI of neck – coronal view

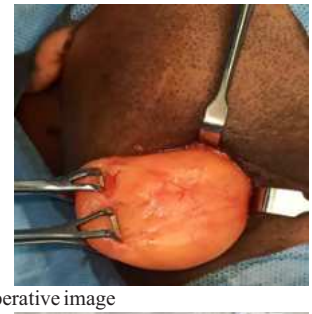

Fig – 8: Intraoperative image

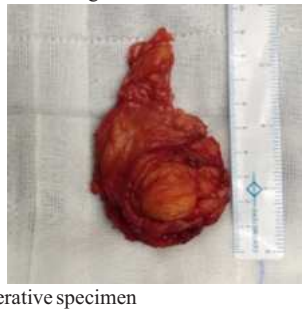

Fig – 9: Post operative specimen

Case 3 – Supraclavicular Angiolipoma

A 32-year-old male presented with a one-year history of right supraclavicular swelling, accompanied by paresthesia and numbness in the right upper limb. Examination revealed a firm 6×6 cm mass. MRI showed a heterogeneously enhancing lesion suggestive of angiolipoma compressing the brachial plexus. Excision was performed with intraoperative neuro-monitoring in collaboration with a hand surgery team. Histopathology confirmed angiolipoma. Neurological symptoms resolved postoperatively.

Fig – 10: Fullness noted in the right supraclavicular region

Fig – 11: Mass noted adherent to paracervical muscles pushing the branchial plexuses downwards and medially

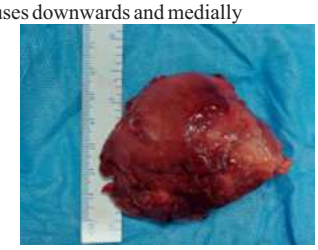

Fig – 12: Post operative specimen

Case 4 – Parapharyngeal Lipoma

A 31-year-old woman presented with a painless left-sided neck swelling for one month. MRI demonstrated a well-defined, fat-intensity lesion in the left parapharyngeal space. The tumor was excised through a transcervical approach under general anesthesia. Histopathology revealed a lipoma. The patient recovered without complications.

Fig – 13: This lesion shows signal intensities consistent with fat, representing a lipoma

Case 5 – Frontal Lipoma

A 56-year-old man presented with a 2-month history of a painless swelling over the left forehead. Examination showed a 4×3 cm mobile, soft mass. Surgical excision under general anesthesia was performed for cosmetic reasons. Histopathology confirmed a lipoma. The postoperative outcome was satisfactory.

Fig – 14: Excision of lipoma from the underlying muscle layer

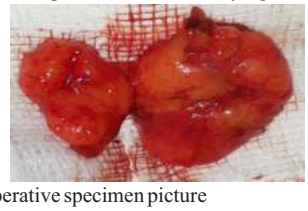

Fig – 15: Post operative specimen picture

Case 6 – Postauricular Lipoma

A 62-year-old male presented with swelling in the left postauricular region. Examination and surgical excision were straightforward, and histopathology confirmed mature adipose tissue, consistent with a lipoma.

Fig – 16 : Clinical Image of the postauricular lipoma

DISCUSSION

Although lipomas are common benign tumors, their presentation in deep or atypical regions of the head and neck is rare and often leads to diagnostic uncertainty. The six cases presented in this series reflect the broad anatomic variability and clinical manifestations of such lesions.

The parotid region lipoma in our series echoes prior studies, which report that intraparotid lipomas account for only 0.6% to 4.4% of parotid tumors [3]. Parapharyngeal lipomas are even rarer, making up approximately 1% to 2% of primary tumors in that region [4]. Sublingual lipomas and those involving the oral cavity constitute 1% to 4.4% of all benign oral tumors [5]. Angiolipomas, as in our supraclavicular case, are less common variants rich in vascular elements and may produce symptoms due to local compression [6].

MRI was the imaging modality of choice for all patients, owing to its excellent soft tissue resolution and ability to differentiate lipomatous lesions from other masses. Typically, lipomas are hyperintense on T1- and T2-weighted MRI sequences and suppress on fat-saturated sequences [7]. MRI also enables precise surgical planning, particularly when lesions are adjacent to neurovascular structures, as in our supraclavicular and parapharyngeal cases.

Surgical excision remains the treatment of choice. In our series, all patients underwent complete excision with no postoperative complications or recurrences to date. In cases of nerve proximity, such as the supraclavicular angiolipoma, intraoperative neuro-monitoring can help preserve neural function and avoid morbidity.

Differential diagnoses vary by location and may include plunging ranulas, pleomorphic adenomas, schwannomas, vascular malformations, and metastatic nodes such as Virchow's node. A multidisciplinary approach, involving radiology, pathology, and occasionally other surgical specialties, is often necessary for accurate diagnosis and safe management.

CONCLUSION

Lipomas, though benign and usually asymptomatic, can present in uncommon and challenging locations within the head and neck. These cases reinforce the importance of considering lipoma in the differential diagnosis of atypical swellings. MRI plays a pivotal role in diagnosis and preoperative planning. Surgical excision remains curative with excellent outcomes. Awareness of these unusual presentations is essential to avoid misdiagnosis and to ensure optimal surgical management. Multidisciplinary collaboration may be necessary for complex cases involving neurovascular structures.

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