CASE REPORT

An unusual parotid mass

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SUMMARY

A 70-year-old Caucasian man with multiple comorbidities presented with a painless lump over the right parotid gland which was gradually increasing in size over the preceding 12 months. There were no systemic symptoms or facial weakness. Imaging indicated a benign tumour of the right parotid. Superficial parotidectomy was performed and the histology revealed a sialolipoma.

BACKGROUND

Sialolipomas are a relatively new histopathological entity of the head and neck affecting the salivary glands. Our aim was to add to the body of existing literature while raising awareness of sialolipomas as a differential diagnosis in enlargement of major and minor salivary glands.

CASE PRESENTATION

A 70-year-old Caucasian man with multiple comorbidities including type II diabetes, hyperlipidaemia and hypertension presented with a 12-month history of an enlarging mass over the right parotid gland. He was systemically well with no weight loss, salivary pain, odynophagia, dysphagia, xerostomia, haemoptysis or facial weakness. On examination, there was a superficial, soft, painless and mobile mass in the right parotid region. The skin overlying the surface of the mass was normal with no discolouration or tethering. There was no cervical lymphadenopathy and the facial nerve was intact.

INVESTIGATIONS

There were no aberrant haematobiochemical findings. CT suggested a benign tumour. Fine-needle aspiration was non-diagnostic.

DIFFERENTIAL DIAGNOSIS

- ▶ Pleomorphic adenoma
- ▶ Warthin's tumour
- ▶ Mucoepidermoid carcinoma
- ▶ Lipoma
- ▶ Sialolipoma

TREATMENT

The patient was managed surgically with a superficial parotidectomy resulting in complete excision of the sialolipoma.

OUTCOME AND FOLLOW-UP

Histology demonstrated diffuse fatty infiltration of glandular parenchyma with relative acinar atrophy in keeping with a parotid sialolipoma (figure 1). There were no long-term postoperative complications and the patient is disease-free at 1 year.

DISCUSSION

Sialolipomas are a histological variant of lipomas characterised by a well-demarcated proliferation of mature adipocytes with secondary involvement of the salivary gland parenchyma.¹ The distribution of reported major salivary gland lesions is 77% in the parotid gland and 23% in the submandibular glands.² The average age at presentation in major salivary gland sialolipomas is 42 (range 0–77) with a male preponderance.^{1 2} There are no reported cases of minor salivary gland sialolipomas in the paediatric population and the average age at presentation is 62 (range 38–84) with a female preponderance.^{1 2} Clinically, patients present with a painless, slow-growing mass with a reported duration that ranges from 2 to 11 years.¹

According to Nagao *et al*,³ histologically, sialolipomas are smooth, well-demarcated lesions characterised by neoplastic mature adipose tissue and non-neoplastic salivary gland tissue enclosed in a thin fibrous capsule. The glandular elements in sialolipomas consist of ductal, acinar, basal and myoepithelial cells that resemble normal salivary gland tissue.³ Nagao *et al*³ first described this entity in 2001 and postulate that these glandular elements of sialolipomas become entrapped during the aberrant proliferation of adipocytes. Of note, the proportion of adipose tissue in sialolipomas varies according to the glands affected. In the parotid gland (major glands), the adipose tissue represents between 75% and 90% of the tumour while in minor salivary glands mature fat cells account for between 50% and 80% of the tumour.^{1 2} There are no reported cases in the literature of cellular atypia in the glandular elements of sialolipomas. Peripheral nerve involvement is rare in major gland lesions and accounts for 14% of reported cases crucially with no reports of facial nerve involvement.⁴ There are no reported cases of peripheral nerve involvement in minor gland sialolipomas.⁵

CT and MRI can be useful investigative adjuncts with sialolipomas appearing as well-circumscribed tumours with a low density signal on CT and high signal on MRI.^{1 4} However, in one reported case, MRI failed to delineate the margins of a sialolipoma, instead suggesting subcutaneous extension; yet this was not the case intraoperatively.^{5 6} Ultrasonography is less useful in terms of identifying the accurate location and consistency of the tumour in comparison with CT and MRI.⁷ Unfortunately, a fine-needle aspiration, usually employed as a first-line investigative procedure for a panoply of salivary gland pathologies, is of limited value in the diagnosis of sialolipomas, being less than 50% accurate.⁷

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Figure 1 Histopathological slide demonstrating normal salivary gland tissue (arrow) surrounded by mature adipose tissue infiltrating throughout. There is a thin fibrous capsule separating normal salivary gland tissue from abnormal adipose tissue (×40 magnification, H&E stain).

Learning points

- ▶ Sialolipomas are a relatively new type of neoplasm of major and minor salivary glands which should form part of the differential diagnosis of a salivary gland swelling.
- ▶ Preoperative diagnosis can be difficult making surgical excision the gold standard as it provides tissue for histological analysis.
- ▶ Sialolipomas are isointense to fat on a CT scan.
- ▶ Fine-needle aspiration and cytology has poor diagnostic yield.

Management of sialolipomas involves either watchful waiting or simple excision with superficial parotidectomy being the preferred option in parotid gland tumours.^{1 2 7} In one reported case, total parotidectomy was required where the deep lobe of the parotid was involved.⁸ To date, there has only ever been one reported case of recurrence despite surgical excision, which has obvious implications for follow-up.⁹

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Competing interests None.

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