CASE REPORT

Deep lobe parotid pleomorphic adenoma presenting as obstructive sleep apnoea

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SUMMARY

We present a rare case of obstructive sleep apnoea (OSA) secondary to a deep lobe parotid pleomorphic adenoma and discuss its management, including the need for a thorough examination and multidisciplinary approach. Only a few cases of pleomorphic adenoma of the deep lobe of the parotid gland causing OSA have been reported. Our case is not only extremely rare but also highlights that key diagnoses may be missed if a thorough assessment is not performed.

BACKGROUND

Obstructive sleep apnoea (OSA) is a common well-recognised entity yet it can often be difficult to diagnose the underlying aetiology. While there is a growing understanding of the problem, rare causes can be diagnosed late.

Studies have shown that OSA is becoming increasingly prevalent and untreated OSA is known to have detrimental health effects.¹

Unfortunately our patient had undiagnosed OSA for at least 2 years despite numerous consultations with different healthcare professionals. His OSA was only diagnosed when he attended an anaesthetic run sleep clinic. Ideally it would have been diagnosed much sooner.

CASE PRESENTATION

A 60-year-old man was referred by his general practitioner to the anaesthetic run sleep clinic with a 2-year history of worsening snoring. He had a history suggestive of OSA.

General examination was entirely normal except a body mass index of 26. Intraoral examination showed a large egg-sized parapharyngeal mass displacing the right tonsil towards the midline (figure 1).

Prior to his attendance at sleep clinic he has been seen six times over the preceding 2 years by various healthcare professionals, although he had undergone general examination where his oral cavity had never been assessed.

INVESTIGATIONS

Fine needle aspiration cytology showed large irregular nuclei, highly suspicious for malignancy. MRI showed a 6.7 × 3 × 6.8 cm right parapharyngeal mass which was inseparable from the deep lobe of parotid gland (figure 2), suggestive of a pleomorphic adenoma arising from the deep lobe of the parotid gland.

Figure 1 Deep lobe parotid mass pushing the tonsil fossa medially.

DIFFERENTIAL DIAGNOSIS

Tumours of the parapharyngeal space are rare. They account for less than 1% of head and neck tumours.^{2 3}

Parapharyngeal space tumours are usually of the following three subtypes^{2 3}:

1. Salivary tumours—most commonly form deep lobe parotid gland.
2. Neurogenic tumours—most commonly schwannomas.
3. Paragangliomas—most commonly chemodectomas.

TREATMENT

While awaiting surgery, his sleep apnoea was treated with continuous positive airways pressure

Figure 2 MRI showing deep lobe parotid tumour.

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(CPAP) thereby decreasing his perioperative risk of respiratory depression related to anaesthesia and opiates.

The patient underwent excision of the tumour and histology confirmed a pleomorphic adenoma of the right parotid gland.

OUTCOME AND FOLLOW-UP

The patient continued with CPAP for 6 months and then he was retested; his snoring had resolved with minimal episodes of oxygen desaturation.

DISCUSSION

The causes of sleep apnoea can be broadly categorised into central (neurological), obstructive (airflow cessation) and mixed.

This is a very rare obstructive presentation as the most common obstructive reasons are related to tonsil enlargement and nasal obstruction (adenoids or abnormal anatomy).

There are only four cases of OSA secondary to parotid pleomorphic adenomas reported in the literature.^{4 5}

Pleomorphic adenoma is the most common type of salivary gland tumour accounting for up to 60% of all deep lobe parotid tumours. They are benign and slow growing but have a potential for malignant degeneration.

Treatment involves surgical excision with or without adjuvant radiotherapy as there is a risk of possible recurrence 20–30 years after treatment. It is usually considered in cases of incomplete resection or intraoperative tumour spillage.⁵

It is widely accepted that management for OSA involves treating the underlying cause and conservative and lifestyle measures adopted initially. The majority of patients do not require surgery and CPAP plays a key role in their management.¹

Learning points

- ▶ Obstructive sleep apnoea (OSA) is a well-recognised and increasingly common entity.
- ▶ Untreated OSA can have detrimental health effects.
- ▶ Management of OSA involves treating the underlying cause.
- ▶ All patients with snoring and suspected OSA should have a thorough assessment including oral examination.
- ▶ If the cause is unclear a referral to a sleep clinic is advised.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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