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## Warthin's tumour – Resolution following FNA



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## ABSTRACT

This case report describes the acute presentation of a patient with a Warthin's tumour in his right parotid gland and complete resolution of the tumour following fine needle aspiration biopsy.

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## 1. Introduction

Warthin's tumour is the second most common salivary gland tumour after pleomorphic adenoma. It is more common in males and 8 times more common in smokers.<sup>5</sup> It is bilateral or multifocal in approximately 10% of patients.

Investigation of a suspected Warthin's tumour commonly involves MRI scan and fine needle aspiration biopsy. There have been reports of partial or complete resolution of Warthin's tumour following fine needle aspiration biopsy.<sup>1–3</sup>

Standard treatment for Warthin's tumour is excision of the lesion, which typically requires a parotidectomy. Smaller tumours can be removed by extra-capsular dissection and in some cases where the diagnosis is clear these benign lesions can be left in situ and kept under observation.

## 2. Presentation of case

A 66-year-old male patient presented to the Accident and Emergency Department of Rotherham NHS Foundation Trust, with a 2 week history of a swelling on the right side of his face. He had been treated with several courses of antibiotics from his General Practitioner without any noticeable change in the swelling. The swelling was painful and the pain increased with eating. There was no associated increase in size of the swelling with meals.

He was medically fit and well, with well-controlled hypertension. He did not smoke and drank alcohol rarely.

Clinical examination revealed a firm and tender swelling in the right pre-auricular region. There was no erythema of the overlying skin. The findings were more consistent with a lump within the parotid gland rather than infection. There was subtle weakness of the right side of his lower lip. He had trismus, with his mouth

opening being restricted by pain. Intra-oral examination was normal. Clear saliva was expressed from his right parotid duct.

This patient was admitted to the ward from A+E. Intravenous antibiotics were started on the basis that the acute presentation was a result of infection. However, his white cell count and inflammatory markers were not raised. An MRI scan (Fig. 1) showed a multicystic mass in the right parotid gland, which extended behind the mandible and into the deep lobe of the parotid gland. The scan also showed a small lesion in his left parotid gland, consistent with bilateral Warthin's tumours. This diagnosis was supported by the results of the fine needle aspiration biopsy of the main lesion, which showed "features suspicious of Warthin's tumour which (had) undergone cystic/haemorrhagic change".

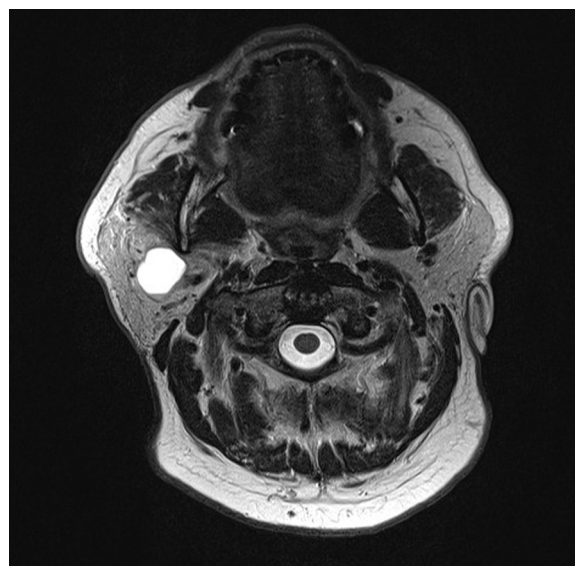
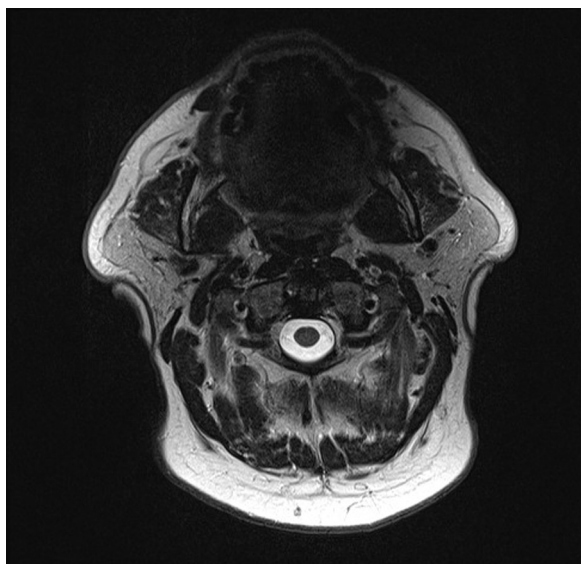


Fig. 1. Mass in the right parotid gland seen in the original MRI scan, June 2013.

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**Fig. 2.** No evidence of the original tumour in this post-FNA MRI scan, October 2013.

Following diagnosis, the treatment plan was to carry out a right parotidectomy to excise the tumour. However, 3 weeks before his planned surgery (approximately 3 months after this acute presentation) this patient contacted the department to report that his swelling and symptoms had resolved. He was seen on clinic for assessment and there was no visible or palpable swelling. A repeat MRI scan (Fig. 2) showed no sign of the original tumour in the right parotid gland. The small tumour in the left parotid gland was unchanged.

In view of this no surgery was undertaken and this patient remains under follow-up with plans to repeat the MRI scan for surveillance in 6 months time.

### 3. Discussion

The acute onset of symptoms in this case is an unusual presentation for a Warthin's tumour. The subtle weakness of the marginal mandibular branch of the facial nerve would not be expected in a benign condition. It is possible that this was a result of the rapid increase in size of the tumour. The MRI scan showed a sizeable Warthin's tumour in the right parotid gland, which appears to have resolved following fine needle aspiration biopsy.

Partial and complete resolution of Warthin's tumour following fine needle aspiration biopsy has been discussed before; Taylor et al. reported a 9% incidence of Warthin's tumour infarction following fine needle aspiration in 2008.<sup>1</sup> How this happens is not fully understood.

### 4. Conclusion

There has been speculation previously as to whether Warthin's tumour is a neoplasm or a hypersensitivity or inflammatory

process.<sup>4–6</sup> If it were a true neoplasm, it would not be expected to resolve following a needle biopsy, and this phenomenon of resolution following a biopsy supports the idea that Warthin's tumour is a proliferative, tumour-like mass rather than a true neoplasm.

### Conflict of interest

There are no conflicts of interest with any of the authors of this paper.

### Funding

None.

### Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

### Author contributions

Lorna Mann: design of case report and drafting of article, Richard Crosher: conception of case report and critical revision, and Clare Steel: critical revision of report.

### Key learning point

- This was an unusual presentation of a Warthin's tumour as the patient presented acutely.
- Partial and complete resolution of a tumour following FNA is not expected, although it has been reported before with Warthin's tumour.
- If Warthin's tumour were a true neoplasm it would not be expected to resolve following a needle biopsy – is it therefore a proliferative, tumour like mass instead?

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