



## Letter to the Editor

### Minimally-invasive resection of benign tumours of the parotid gland in the parapharyngeal space

Sir,

It has been widely shown that minimally-invasive surgery for benign tumours of the parotid gland improves function (by reducing the amount of resected normal parotid tissue and facial nerve branches), shortens the operating time, and reduces postoperative complications. It is also oncologically safe and secures low recurrence.<sup>1–5</sup> It is, however, controversial in lesions within the parapharyngeal space.

We evaluated the technical feasibility and safety of a minimal V-shaped incision that curved around the ear lobe with no hairline or cervical extension for resection in the parapharyngeal space. We treated two patients who had pleomorphic adenomas that had been diagnosed with magnetic resonance imaging and fine needle aspiration cytology. Both were operated on under general anaesthesia by the same surgeon (AVO) with loupe magnification x 2.5, and a headlight.

The incision curved around the ear lobe. The preauricular area followed the natural crease of the skin into the insertion of the helix (and it may be extended along the internal face of the tragus if necessary, depending on the size of the tumour), and continued 1–2 cm posterosuperiorly (depending on its size) along the postauricular sulcus, separated 1 mm from the lobe (Fig. 1). The skin and the superficial musculoaponeurotic system flaps were raised independently and anteroinferiorly; the posterior branch of the greater auricular nerve was identified and preserved, and the ear-lobe was retracted superiorly. The main facial nerve trunk was reached conventionally, and dissection of the inferior branches allowed visual control of the facial nerve and a safe approach to the parapharyngeal space through transparotid and submandibular routes. Finally, the tumour was excised completely, haemostasis was checked, a vacuum drain placed behind the posterior end of the incision, the superficial mus-

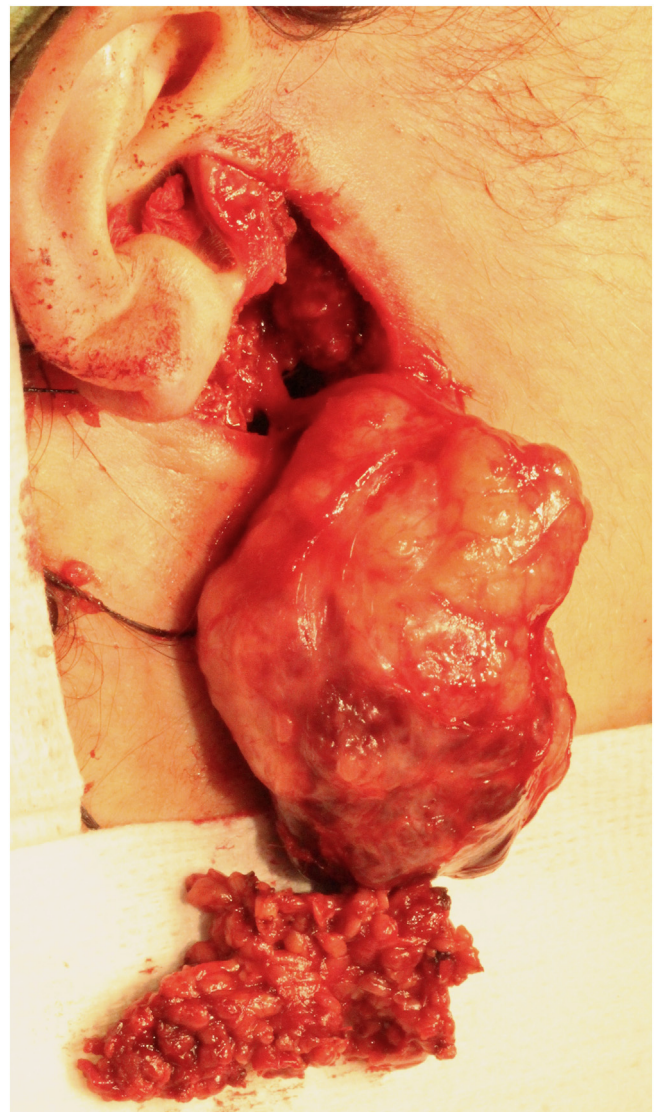


Fig. 1. Surgical approach and removal of tumour in patient 1.

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Table 1  
Patients' details.

Variable	Patient 1	Patient 2
Age (years)	34	28
Sex	Female	Male
Initial symptoms	Vertigo and headache	Incidental finding during examination of a lingual lesion
Surgical approach	Earlobe and retrotragus extension	Earlobe
Tumour side and size (mm)	Right: 50 × 40 × 30	Left: 45 × 35 × 27
Duration of operation (minutes)	190	95
Volume of drainage (ml)	< 100	< 100
Duration of hospital stay (days)	2	2
Postoperative complications	None	None
Follow up (years)	4	1
Relapse	No	No

culoaponeurotic system flap repositioned, and the wound sutured in two layers.

The patients' characteristics at baseline, surgical observations, and postoperative outcomes are shown in Table 1. Postoperatively, neither patient had infection in their wounds, necrosis of the flaps, haematoma, permanent facial nerve palsy, hypertrophic scarring, or first bite or Frey syndromes.

We evaluated the subjective satisfaction of the surgeon and patients with the aesthetic outcome at 6 and 12 months of follow-up using a 0–10 visual analogue scale (0 = complete dissatisfaction, 10 = maximum satisfaction), and all scored 10.

Excellent aesthetic outcomes can therefore be achieved because: the minimally-invasive incision avoids necrosis of the flap and reduces unsightly scars; hiding the incision in a natural skin crease and behind the earlobe or the tragus affords an invisible scar; and the operative site can be prevented from sinking by means of a superficial musculoaponeurotic system flap and normal preservation of the parotid tissue.<sup>2</sup> Such a minimally-invasive approach requires a certain learning curve, however, and our team has had over 10 years of experience with the technique.<sup>1</sup> On the other hand, the transparotid route allows constant control of the facial nerve.

In oncological terms, an accurate preoperative diagnosis is essential to establish the appropriate approach (more, or less, aggressive), and clear resection margins are crucial to avoid relapse, regardless of the method of resection (enucleation, extracapsular dissection, or partial, total, or radical parotidectomy).<sup>3–5</sup>

In conclusion, our results suggest that the minimally-invasive resection of benign tumours of the parotid gland in the parapharyngeal space affords satisfactory results, without unsightly scars or increased relapse.

### Conflict of interest

We have no conflicts of interest.

### Ethics statement/confirmation of patients' permission

Ethics approval not required. Patients' permission was obtained.

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