LETTER TO THE EDITOR

Parapharyngeal ectopic thyroid mimicking deep lobe parotid tumour along with multinodular thyroid goitre—a very rare presentation

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Parapharyngeal ectopic thyroid tissue is a rare entity.¹ The presence of such tissue in close approximation to other head and neck structures can pose a diagnostic dilemma as we found in our case. A 74-year-old lady presented with a 1 year history of painless gradually increasing mass in the right parotid gland region. 5 years previously she had been diagnosed with multinodular thyroid goitre. The MRI scan of the right parotid gland revealed a $4 \times 3.8 \times 2.5$ cm mass situated predominantly within the deep lobe. This showed low-signal intensity on T_1 weighted and high-signal intensity on T_2 weighted and short T_1 inversion recovery images (Figures 1, 2 and 3). These features were consistent with a radiological diagnosis of pleomorphic adenoma arising from the deep lobe of the right parotid gland and

hence no fine needle aspiration was undertaken. A thyroid goitre was also noted on the scan, which coincided with her history. A total parotidectomy procedure was planned. During the surgery, the deep lobe was found to be of normal appearance and texture; therefore only superficial parotidectomy was carried out with the deep lobe left in situ. The MRI scan was repeated following surgery. The mass remained difficult to separate from the residual deep lobe of the parotid gland (Figures 4 and 5). The differential diagnosis was modified to include neurogenic tumours and paragangliomas in the parapharyngeal location based on the surgical findings. Formal excision of the parapharyngeal mass was undertaken through a transcervical approach. The mass was found to be soft, well encapsulated and lobulated lying lateral to the internal jugular vein and

Figure 1 T_1 axial MRI image showing low signal mass within the deep lobe of right parotid gland. (a) Right parotid gland; (b) mass appears to be within the deep lobe; (c) left parotid gland

Figure 2 T_2 axial MRI image showing high signal mass within the deep lobe of right parotid gland

Figure 3 Coronal short T_1 inversion recovery MRI image showing the thyroid goitre along with the parotid mass. (a) Mass within the deep lobe; (b) multinodular thyroid goitre

behind the deep lobe of the parotid gland. Surgery was uneventful. Histopathology revealed colloid filled follicles of varying sizes compatible with thyroid parenchyma. A diagnosis of ectopic thyroid was made. No

Figure 4 T_1 axial MRI image following superficial parotidectomy revealing the mass to be still within the deep lobe of right parotid gland. (a) Residual parotid gland after superficial parotidectomy; (b) mass difficult to separate from parotid gland

Figure 5 T_2 axial MRI image following superficial parotidectomy revealing the mass to be still within the deep lobe of right parotid gland

papillary features were seen. Post-operatively, routine thyroid function tests were carried out and all were found to be within normal range. Imaging plays an important role in differentiating deep lobe parotid tumours from other parapharyngeal masses.² The demonstration of a fat plane between the deep lobe of the parotid gland and the tumour is indicative of tumour originating *de novo* in the parapharyngeal space.

Sometimes, a mass can be so large as to compress and efface the fat planes. This makes it very difficult to distinguish between a deep lobe tumour and a parapharyngeal mass. It is important to consider parapharyngeal tumour or masses in the differential diagnosis of deep lobe parotid tumours and include ectopic thyroid as one of the parapharyngeal masses.

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