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Capillary haemangioma of the parotid in an adult: an unusual case and a review of the literature

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Abstract
Haemangioma of the parotid gland is a well-described condition that accounts for 50 per cent of parotid tumours presenting during the first year of life. Parotid haemangiomas in adults are much rarer and until now only the cavernous variety have been reported. We report a case of a capillary haemangioma in an adult and discuss the literature.

Key words: Parotid neoplasms; Haemangioma; Capillaries

Case report

A 50-year-old lady was referred to the ENT department with a suspected parotid mass; she gave a four-month history of a mass on the left side of her jaw which had grown very slowly and was asymptomatic. There was no other relevant medical history.

On examination a diffuse lump was noted behind the angle of the left jaw, which appeared to be in the deep lobe of the parotid gland; facial nerve function was normal. A computed tomography (CT) sialogram demonstrated a parotid mass with no unusual features.

Fine needle aspiration cytology was therefore performed but was inconclusive. Clinically the mass was felt to be a pleomorphic adenoma and the patient underwent a parotid exploration. At the time of surgery, the lesion was noted to lie within the deep lobe of the parotid gland and was approximately 2 × 2.5 × 2.5 cm in size. The exploration was performed under magnification, bleeding was not a problem and there was no damage to the facial nerve as demonstrated by electrical stimulation. Post-operative recovery was uneventful with normal facial nerve function and the patient remains well after 18 months follow-up.

Macroscopically the lesion was 2.5 cm at maximum diameter, pale and well circumscribed; histologically the lesion consisted of lobules of vascular tissue with small capillary spaces (Figure 1). A diagnosis of capillary haemangioma was made.

Discussion

Benign haemangiomas are the commonest tumours of the parotid and the vast majority are found in children below the age of one year (Robertson *et al.*, 1991). These are usually of cavernous type although capillary haemangiomas of the parotid have been reported in children (Mantravadi *et al.*, 1993). Capillary haemangiomas occurring within the masseter muscle in adults have been described (Wolf *et al.*, 1985) but despite an extensive literature search we have not found a reported case of a capillary haemangioma of the parotid in an adult.

Williams (1975) and Mantravadi *et al.* (1993) state parotid cavernous haemangiomas show a female preponderance particularly in children; however Waltz and Katz (1980) show an equal incidence in adults.

Parotid haemangiomas tend to present as mass lesions which may, particularly in children, rapidly increase in size. This may be due to efferent vessel spasm (Backus and De

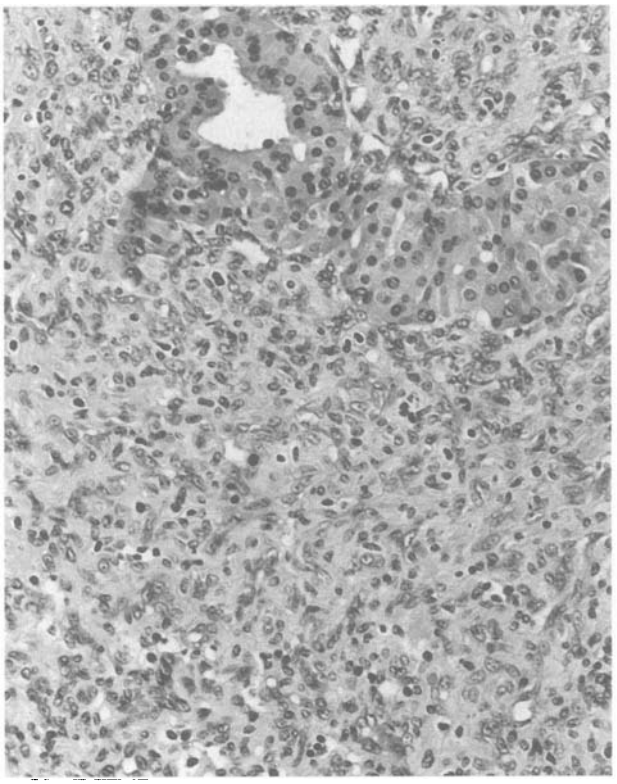

FIG. 1
Salivary gland tissue surrounded by capillary blood vessels (H & E; ×100).

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Felice, 1957). The majority of cases are relatively asymptomatic but Robertson *et al.* (1991) and Winerman *et al.* (1981) both reported emergency parotidectomies for life-threatening haemangiomas in children for acute cardiorespiratory failure and intra-parotid haemorrhage respectively.

In adults the presentation is often insidious with a slow parotid mass (Winerman *et al.*, 1981) but acute pain has been described (Chuong and Donoff, 1984). This makes accurate pre-operative diagnosis difficult.

There are no consistent specific clinical signs and this often leads to an incorrect pre-operative diagnosis (Waltz and Katz, 1980). A bluish discolouration to the overlying skin (Winerman *et al.*, 1981) and thrills or bruits (Conley and Clairmont, 1997) have been reported. Faber *et al.* (1978) describe firstly an increase in the size of the mass on clenching the teeth (hence contracting the underlying masseter muscle) and secondly the presence of calcified opacities on X-ray. Dempsey and Murley (1970) describe the 'turkey wattle' sign whereby the mass increases in size with head dependency or Valsalva manoeuvre. Facial nerve involvement has not been specifically reported.

More recently, imaging has been suggested as the definitive investigation (Morgan *et al.*, 1989); however the CT scan performed in this case demonstrated no unusual features suggesting a haemangioma. Huchzermeyer *et al.* (1994) have suggested that magnetic resonance imaging (MRI) is now the investigation of choice because of improved soft tissue definition and lack of exposure to ionizing radiation. Signal voids representing blood vessels are seen using a combination of T1- and T2-weighted images. It is also suggested that ultrasound may provide useful information if MRI scanning is not readily available.

The treatment of parotid haemangiomas in children is conservative unless surgical intervention is forced by clinical considerations as many undergo spontaneous resolution (Williams, 1975; Waltz and Katz, 1980). Parotid haemangiomas in adults do not regress and the treatment of choice is a parotidectomy with facial nerve preservation. Parotid haemangiomas if completely excised do not recur (Waltz and Katz, 1980). Troublesome bleeding at the time of operation is well-documented (Chuong and Donoff, 1984).

Conclusion

The case presented is a capillary parotid haemangioma in an adult. This is a very unusual tumour. The literature is reviewed including specific clinical signs and relevant imaging.

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