

## Intramuscular capillary hamartoma of the tongue

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### Abstract

Intramuscular vascular lesions in the tongue are rare and are usually the capillary form of haemangioma. A case is described of a lingual mass that resembled intramuscular haemangioma but had unique histological features that do not appear to have been described previously. The term intramuscular capillary hamartoma is suggested to describe it.

**Key words:** Tongue; Haemangioma; Hamartoma

### Introduction

Haemangiomas are the most common type of soft tissue tumours. They may be capillary, cavernous, or mixed, depending on the size of the vessels. They are usually superficial and have a predilection for the head and neck region. However, the intravascular variant is much rarer and accounts for fewer than 0.8 percent of vascular tumours.<sup>1</sup> Intramuscular haemangiomas can involve any muscle but they are seen most frequently in the lower extremities, particularly the thigh.<sup>2</sup> The capillary variant of intramuscular haemangioma appears to have a predilection for the head and neck region, particularly the masseter and trapezius muscles.<sup>3</sup> Examples in the tongue are rare.<sup>4</sup>

Intramuscular haemangiomas can cause considerable difficulties in diagnosis and clinical management. Frequently they present as deep soft tissue masses and their vascular nature may not be obvious. In addition, they have an infiltrative characteristic and may simulate a malignant tumour. They can bleed profusely during surgery and have a significant local recurrence rate, which in some series is over 50 per cent.<sup>5</sup>



FIG. 1

Oral photograph showing discrete lesion on the postero-lateral border of the tongue.

A case is presented of a vascular lesion of the tongue that appears to be a hitherto undescribed variant of an intramuscular vascular lesion with features of a capillary hamartoma.

### Case report

A 32-year-old lady was referred, via her dentist, with a swelling on the tongue. This had been observed by the practitioner and had not changed in size or shape for the last six months. Examination confirmed an expanded, discoloured area on the right mid-third lateral aspect of her tongue (Figure 1). The swelling was firm to touch with no associated mucosal ulceration. Her neck and upper aerodigestive tract were otherwise clear.



FIG. 2

Axial MRI scan showing the hamartoma in the tongue.

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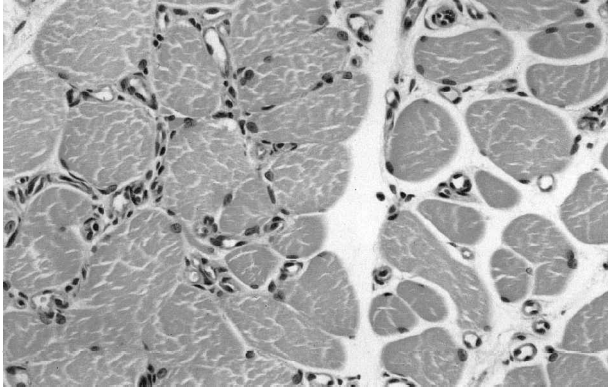


FIG. 3

Low power photomicrograph shows hypertrophied muscle and numerous small capillaries between the muscle fibres (H & E;  $\times 100$ ).

Magnetic resonance imaging (MRI) (Figure 2) showed the presence of a discrete tumour, in excess of 1.5 cm, confined to the right postero-lateral aspect of the tongue. No flow voids or draining vessels were seen to suggest that this was a vascular anomaly. No cervical adenopathy was demonstrated. An incisional biopsy was performed for histological evaluation.

#### Histological features

Sections showed florid proliferation of individual, mature, thin-walled capillaries extending around and between muscle fibres. The muscle fibres themselves appeared to be hypertrophic (Figures 3 and 4). The interpretation was that the lesion was a form of capillary hamartoma, possibly leading to muscle hypertrophy.

Due to pregnancy, the benign nature of the lesion and its location, excisional biopsy has not been performed as yet.

Close observation and a repeat MRI have all confirmed little change in the characteristics of this lesion so far.

#### Discussion

Hamartoma, derived from a Greek word hamartanein (to fail, to err), was chosen by Albrecht to define 'a tumour-like malformation showing a faulty mixture of the normal components of the organ in which they occur'.<sup>6</sup> Haemangiomas are benign lesions that resemble normal vessels so closely that the distinction between hamartoma, malformation and tumour is difficult. Weiss and Goldblum<sup>2</sup> use the term haemangioma as 'a benign, nonreactive process in which there is an increase in the number of normal or abnormal-appearing blood vessels, recognizing that many of these lesions represent tissue malformations rather than true tumours'.

The present case describes a vascular lesion of the tongue that differs from previously reported intramuscular haemangiomas. The lesion consisted of mature capillaries that intimately surrounded individual muscle cells. This gave the lesion a striking resemblance to the appearances seen in normal cardiac muscle, where the capillaries lie in the endomysial septa and form a branching and anastomosing network of vessels. The muscle fibres in the tongue appeared to be hypertrophied and it could be speculated

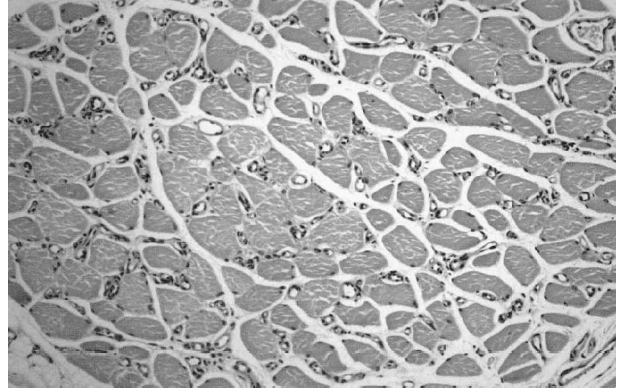


FIG. 4

Higher power photomicrograph (H & E;  $\times 200$ ).

that this was a consequence of the rich vascularization. No reference to a precisely analogous lesion could be found in the literature but it was thought that the lesion represented a capillary hamartoma rather than a tumour.

- This paper is a case report describing an intramuscular vascular lesion of the tongue
- The lesion appears to have unique histological features and the authors discuss the histopathology
- The lesion is reported on the basis of biopsy rather than full excision as the patient was pregnant at the time of reporting the case

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