

# Submandibular Haemangioma Involving Parotid Tail: Case Report

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## ABSTRACT

Fasciocervical haemangiomas present as a doughy swelling in the submandibular or the parotid region. Imaging studies preferably the MRI clinch the diagnosis with areas of vascular voids.

A rare case of haemangioma interposed between the tail of parotid and submandibular gland was delivered from the upper presternomastoid gutter.

Keywords: Haemangioma, Parotid, Submandibular

### Introduction

Hemangiomas are the most common lesions of the major salivary glands during infancy and early childhood<sup>1,2</sup>. They occur predominantly in the parotid gland and adjacent structures, but they are very rarely reported in submandibular area

The parotid and the submandibular glands, the major salivary glands come in contact with each other at the upper third of the sternocleidomastoid muscle. A rare case of haemangioma interposed between the tail of parotid and submandibular gland was delivered from the upper presternomastoid gutter.

#### **Case Report**

A 30 year make presented with a soft kneadable swelling on the left upper neck. The swelling was soft and could be localised between the mastoid tip and the angle of the mandible , The swelling was extending beneath the tail of the parotid and upper limited could be discerned . The posterior edge could be rolled over the upper third of the sternocleidomastoid muscle . Anteriorly and on bimanual palpation a blunt edge could be palpated . No bruit was detected on auscultation, thereby reconfirming a low vascular flow lesion . Fine needle aspiration cytology revealed haemangioma of the submandibular gland.

On CT imaging homogenous mass seen arising from the submandibular gland and abutting the tail of parotid . He was taken up for cervical exploration under general anaesthesia . A transverse skin crease incision was given at the level of the hyoid and superficial fascia with fat and platysma was dissected to develop superior and inferior flaps , The plane of dissection was just superficial to the mid third of the submandibular gland anteriorly and the sternomastoid posteriorly. The external jugular vein and the greater auricular nerve were liberated from the overlying fat and this marked the posterior limit of exposure . Superiorly the tail of the parotid was exposed between the angle of the mandible and the sternocleidomastoid fibres(Picture 1A). The haemangioma was lifted off ,by creating a plane of anterior cleavage over the fascia of the submandibular gland and proceeding posteriorly till the sternomastoid(Picture1b) . Upward dissection freed the lesion from the angle of the mandible . Resection was completed with transfixation and ligating a cm of the tail parotid, from which the lesion was inseparable(Picture 1C) . Haemostasis was maintained throughout . An indwelling drain was placed to be retained for 48 hrs and absorbable vicryl followed by nonabsorbsle sutures were applied. There was slight deviation of the angle of the mouth which was expected to recover in three weeks. Histo pathology reported haemangioma from the tail of parotid.



Fig. : 1A



Fig. : 1B



Fig. : 1C

### DISCUSSION

Hemangiomas are the most common lesions of the major salivary glands during infancy and early childhood<sup>1,2</sup>. They occur predominantly in the parotid gland and adjacent structures, but they are very rarely reported in submandibular area

The parotid and the submandibular glands, the major salivary glands come in contact with each other at the upper third of the sternocleidomastoid muscle. The region marks the posterior border of the submandibular and the inferior limit of the parotid. Discrete fascial envelopes exist over either glands and a cleavage of dissection can be created so as to gain access to the floor mouth or the

sublingual space superomedially or the massetric and the parapharyngeal space supero-laterally . Anterior retraction of the tail of the submandibular gland and superior retraction of the tail parotid , gives a wider access to deliver capsulated bulky tumors of the parapharyngeal compartment . Haemangiomas, of low vascular flow and single or limited feeding vessels are amenable to surgical intervention while those with a high vascular flow necessitate an angiographic evaluation to plan the ideal therapeutic modality . In the latter sclerosing agents and embolisation is to be considered . Haemangioma s in proximity to the salivary glands are usually juxtaposed to their lateral surface with small pseudopods indenting or invaginating the acinar framework . A fiery red cobblestone appearance and a doughy feel characterise these pathologies . Mostly they can be peeled off the underlying bed . The parotid ones are notable in the paediatric age group while the submandibular in the middle aged .

Salivary Gland Hemangiomas constitute about 1.5% of all tumors affecting the salivary glands. The tumor can be present in adults and children of a wide age range; a congenital presentation is also observed. Approximately 65% of the cases are seen before age 20 years. A predilection for children is noted; a hemangioma is the most commonly noted tumor of the salivary glands affecting children. Both males and females are affected; some studies report a male-female ratio of 1:2.All races and ethnic groups may be affected.

Cervicofacial haemangioma s are notorious for giving a facial asymmetry ,the primary pretext for intervention ,sclerotherapy , embolisation or surgical . The lesion in low pressure situations can be taken for surgery.

In the salivary glands two main types of haemangiomas occur : cavernous and capillary. Capillary type is lobulated, lacks a capsule, is purplish in colour and infiltrates the gland involved. Microscopically solid masses of cells and multiple anastomosing capillaries replacing the acinar structure of the gland are seen. The cavernous type is formed by dilated blood vessels or sinusoids lined by endothelium. It is also devoid of a capsule and is infiltrative in nature.<sup>3</sup>It is interesting to note that these benign mesenchymal tumours are common in parotid, probably due to lack of well defined capsule and presence of neurovascular structures in it<sup>4</sup>

## Conclusion

A meticulous dissection undertaken in the sternomastoid -glandular region can deliver vascular lesions with minimal morbidity. Submandibular gland haemangiomas may have extension into the tail of parotid gland. Therefore, careful dissection is imperative for diseases clearance and prevention of recurrence. A sound anatomical knowledge is a must for exploration of submandibular region.

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