

## Case Report

# Vascular malformations of the parotid region – Review of literature and Case Report

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### Abstract

Vascular lesions are rarely encountered within parotid glands. Vascular lesions in parotid can be pseudoaneurysm, arteriovenous fistula (AVF) and haemangioma besides rare tumours like cystic hygroma.

Any swelling in the parotid gland which shows sudden increase in the size of the swelling is attributed to either infection or cystic degeneration of the tumour. Cystic Hygroma accounts for 5% of the vascular malformation occurring in the face or parotid gland.

Here we have a 13yr old patient with a vascular cystic lesion in the parotid gland with insidious onset. She underwent superficial parotidectomy and histopathological examination confirmed it as a vascular malformation. Studies have shown that vascular malformations in children are seen in less than 1yr age group.

**Keywords:** vascular malformations, hamartoma, parotid gland

## 1. Introduction

Tumours of the parotid gland is a very common entity occurring in all age groups. Vascular lesions in parotid gland are usually haemangioma and aneurysms. Cystic hygroma are also seen but not commonly. Here we are discussing the occurrence of these uncommon tumours of the parotid gland and also presenting a case report of a young girl with a vascular malformation mimicking cystic hygroma in the parotid gland.

## 2. Case report

A 13 yr old girl presented with sudden appearance of swelling in the left parotid region following a slap from teacher 1 week back. On examination she had a cystic swelling of the left parotid region with a small nodular extension post auricularly. A clinical diagnosis of cystic hygroma was made and further evaluated. Ultrasound of the swelling gave similar diagnosis. There was no facial nerve involvement. Patient also had a big hairy naevus on the right forehead. She did not have any lesions or swellings elsewhere in the body. During surgery the sac contained gel like fluid and attached firmly to the parotid gland all over. In view of the adherence superficial parotidectomy with preservation of all the facial nerve branches was done and specimen sent for histopathological examination (HPE).

HPE of the specimen revealed it as a vascular malformation - cystic hygroma.

Patient did well postoperatively and was discharged 12 days later.



### 3. Discussion

**Salivary Gland tumours (Parotid):** Tumours in the parotid gland are the commonest salivary gland tumours constituting about 80% of them, pleomorphic adenoma is the commonest. Vascular lesions in parotid can be haemangioma (cavernous) and aneurysm, while the rarest ones like cystic hygroma, retention cysts and simple lymphatic cysts constitutes 5%. Cystic tumours of parotid into 2 varieties i.e: haemangioma and vascular malformations. Vascular malformations are different from hemangiomas of the parotid gland. Ahemangioma actually represents a vascular lesion, which has cellular proliferation, appears within days or weeks after birth<sup>9</sup>, Lymphangiomas(cystic Hygroma) are most commonly located in the head and neck region of infants and children. They are believed to be due to lymphatic sequestration of primitive embryonic lymph ducts that undergo irregular growth and canalization. They are spongy, multiloculated masses with a yellowish or bluish surface and are formed by endothelial-lined spaces. More than 50% manifest at birth, and 80% manifest by age 2 years. Usually, they manifest as painless masses that may involve parotid glands, submandibular glands, or both. Diagnosis is made based on clinical findings. Surgical excision with preservation of the vital structures is the treatment of choice<sup>3,4</sup>.

Tumours of the parotid gland are a common entity with pleomorphic adenoma being the commonest. Vascular and cystic lesions in parotid gland are usually congenital, Haemangioma and aneurysms forms 80% of them<sup>12</sup>. Any lesions in the parotid either solid or cystic need to undergo surgery. The main stay of treatment as it is closely attached to facial nerve. The prognosis following surgery with preservation of all the branches of facial nerve is good.

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