

## PAROTID ABSCESS AN UNUSUAL CAUSE OF FACIAL PALSY

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### ABSTRACT

Facial nerve palsy with a parotid mass is usually associated with malignant neoplasms of parotid gland. Its occurrence as a complication of parotid abscess is extremely rare. We present a case of parotid abscess which is complicated by facial nerve dysfunction. Underlying neoplasia was excluded.

**Key Words:** Abscess, Parotid, Parotid abscess, facial palsy

### INTRODUCTION

Facial nerve palsy associated with parotid gland mass is always caused by malignant neoplasm of the gland. It has been documented in benign parotid disease such as benign mixed tumors, Warthin's tumor, parotid cysts and alveolar duct malformations. Its occurrence complicating parotitis or parotid abscess is exceedingly rare.

### CASE REPORT

A 64 year old male patient presented with left sided facial swelling for 10 days. His presenting symptom was pain in the swelling with left peripheral nerve facial palsy (House Brackmann grade III) developed one day earlier only. There was no dysphagia, sore throat or dental pain and history of parotid disease.

On examination, he was febrile (100.2°F). He had left sided neck swelling measuring 5 X 4 cm over the angle of mandible, which was indurated but no area of fluctuance. There was no palpable cervical lymphadenopathy. Oral examination was unremarkable.

The white blood count was  $13.8 \times 10^9/L$ . Ultrasound showed features of parotid abscess. Incision and drainage of the abscess was immediately done draining frank pus about 10 – 15 ml. Antiseptic dressing was done with Jatayadi Taila. Sanjeevni vati and Triphala gugglu both twice a day with Dashmool kwath were prescribed orally. Histopathological report later showed no evidence of malignancy. Post procedure he remained afebrile. Swelling reduced in size. On day 10 he was discharged, but there was no change in the degree of facial nerve palsy.

### DISCUSSION

Parotitis can be caused by a variety of pathogens. The most common bacteria are Staphylococcus aureus and anaerobic bacteria. Viral agents such as Epstein-Barr virus, HIV and human parvovirus B19 have been reported to cause intraparotid lymphadenitis with facial palsy. Candida albicans has also been isolated in a parotid abscess. In most of the reported cases of parotitis with facial palsy, no pathogen was isolated.

A few mechanisms have been proposed of the pathogenesis of facial nerve dysfunction secondary to inflammatory parotid gland disease. These include the virulence of the offending organisms and perineuritis. In this case it may be possible it arises from local toxic effects from the intense surrounding parotitis, and ischaemic neuropathy with acute facial nerve compression secondary to the rapidly expanding abscess.

The House-Brackmann grading system is a useful tool in assessing the degree of facial weakness in facial nerve injury. Grade I is normal. Grade II is mild dysfunction, complete eye closure with minimal effort. Grade III shows obvious weakness, but eye closure is complete and asymmetrical mouth movement with maximal effort. Grade IV shows disfiguring weakness with inability to lift eyebrow, incomplete eye closure and asymmetry of mouth. Grade V shows barely perceptible motion, slight movement of corner of mouth. Grade VI is total paralysis with loss of tone.

The degree of facial nerve recovery does not correlate with the severity or the extent of initial nerve involvement, or presence of infection. The chances of recovery are good when etiology of parotid pathology is benign. Our patient was followed up for a period of 1 month but no change was noted in the degree of facial nerve palsy.

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## **CONCLUSION**

Facial nerve paralysis associated with suppurative parotitis should be kept in mind for several reasons. Firstly, facial nerve palsy with a parotid swelling does not necessarily indicate a malignant parotid tumour. Secondly, failure to perform adequate and speedy drainage may lead to facial nerve palsy as complication. Thirdly, a high index

of suspicion of non-iatrogenic facial palsy developing during treatment of a parotid abscess may help starting the appropriate treatment for the facial nerve palsy.

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