

Case Report

Intraparotid facial nerve schwannoma: A rare case report

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Abstract

Intraparotid facial nerve schwannomas are extremely rare neoplasm that presents challenge in diagnosis and management as they are rarely diagnosed preoperatively. We sought to gain insight into clinical presentation, appropriate diagnostic and management modalities which is a matter of debate. Here we present a rare case of intraparotid facial nerve schwannomas diagnosed intra-operatively and managed with surgical excision.

Keywords: schwannoma, neuroectodermal tumours, Schwann cells

1. Introduction

Schwannomas are rare, benign, encapsulated neuroectodermal tumours arising from Schwann cells. Among 25-40% of a schwannomas that occur in head and neck region only very few cases originate from facial nerve^{1,2}. Majority of facial nerve schwannomas arise from infratemporal part, rarely involves intraparotid part of facial nerve, accounting for 10 % of cases, which typically presents as asymptomatic parotid mass^{2,3}. It is rarely diagnosed preoperatively because its incidence is rare accounting for 0.2-1.5 % and it mimics pleomorphic adenoma in clinical presentation³. There is great potential of misdiagnosis and mismanagement when detected intraoperatively with worst consequences of facial nerve palsy. We present this case to highlight the rarity of its occurrence that mimics pleomorphic adenoma, diagnosed only intraoperatively even when cytology and imaging modalities were not helpful in preoperative diagnosis.

2. Case Report

32 year old male presented with gradually increasing mass in the parotid region since 3 years. On examination lump of 6cm x5cm firm in consistency, mobile was present in parotid region with no signs of facial nerve palsy. FNAC was suggestive of pleomorphic adenoma. USG showed hypoechoic mass of 6cm x 5cm. He was posted for superficial parotidectomy after taking consent for possible facial nerve complication. Intra-operatively mass was found to be arising from mandibular branch of facial nerve (fig.1). Enucleation of schwannoma with superficial parotidectomy was done (fig.2). Histopathological examination revealed benign schwannoma (fig.3). Post-operatively patient developed facial nerve paresis and he improved with steroids in 8 days.

Fig 1: Swelling in the parotid region



Fig 2: Intraoperative swelling

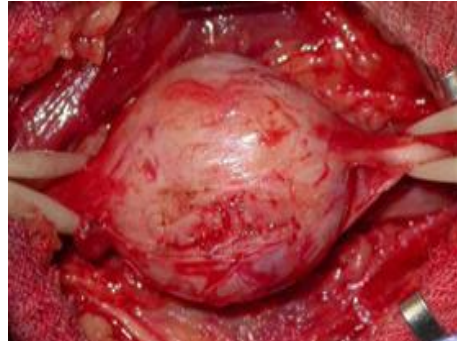
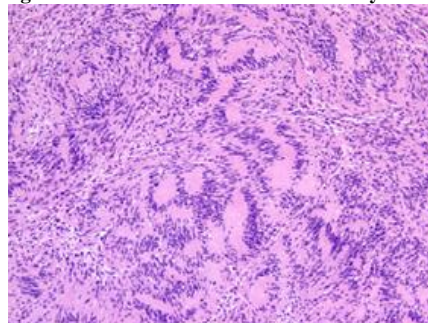


Fig. 3: Spindle cell tumor showing antoni A and antoni B areas. Verocay bodies and macrophages are present



3. Discussion

25-40% of schwannomas that occurs in head and neck region most commonly involve VIIIth cranial nerve and rarely VIIth cranial nerve². Most of them arise from infra temporal part (90%) and only 9% of them arise from intra-parotid part of facial nerve³. 75% of them are asymptomatic and mimics pleomorphic adenoma rarely diagnosed pre-operatively⁵. There is no single diagnostic modality that can diagnose facial nerve schwannomas with certainty^{4,5}. Sonographically neurogenic tumours presents as spindle shaped mass with cystic areas⁷. MRI is optimal in detecting facial nerve schwannomas compared to CT scan^{8,9}. Fine needle aspiration cytology is unreliable in making diagnosis intra-parotid facial schwannomas^{10,11}. In most cases the diagnosis is made intra-operatively when the surgeon finds difficulty in locating facial nerve⁷. Thus there is great potential of injury to facial nerve while resecting the tumour.

The best plan of management is matter of debate^{3,12}. Some authors prefer conservative management for asymptomatic benign intra-parotid facial nerve schwannoma followed up clinically and radiologically with MRI¹². Some prefer resection with or without nerve grafting using sural nerve or great auricular nerve that provide better results^{3,12}. The decision depends on patient preference, pre-operative facial nerve function, extent and biological behaviour of tumour¹³. In our case patient preference and size of tumour was indication for surgical resection. Various other modes of facial nerve schwannoma includes cryosurgery,

4. Conclusion

We conclude that intra-parotid facial nerve schwannoma is very rare neurogenic tumour and rarely diagnosed pre-operatively. When diagnosed intra-operatively surgeon should have best management algorithm in his mind and decision should depend on patient preference and facial nerve function outcome

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