

Schwannoma (Neurilemmoma) As Parotid Tumor - A Rare Presentation

J Singh, P Garg, S Verma, S Aggarwal, A Narang, V Rathee, K Kaushik, N Verma, S K Yadav

Citation

J Singh, P Garg, S Verma, S Aggarwal, A Narang, V Rathee, K Kaushik, N Verma, S K Yadav. *Schwannoma (Neurilemmoma) As Parotid Tumor - A Rare Presentation*. The Internet Journal of Otorhinolaryngology. 2013 Volume 15 Number 1.

Abstract

INTRODUCTION

Schwannoma or neurinoma (coined by Verocay in 1910) is an ectodermal benign tumor arising from Schwann's cells¹. Although this tumor is widely distributed in head and neck, especially in association with acoustic or eighth cranial nerve. They are rarely seen in parotid region. Balle^{et. al.} reported only two cases among 142 cases of parotid tumors seen over 6 years². Very few originate from facial nerve and in majority of these cases they arise from its intratemporal branch³⁻⁵. Preoperative diagnosis of neurilemmoma is difficult. Fine needle aspiration cytology although has high specificity for parotid swellings, has a limited value in diagnosis of neurilemmoma in parotid region, as was seen in our case. Hence this case is been reported due to rarity of these tumors in this region.

CASE REPORT

A 21 year old male patient presented with a history of gradually increasing painless swelling noticed in the right parotid region one and half year ago. Examination revealed a well defined 4 x 2 cm, non tender, firm, mobile swelling in right parotid area. Facial nerve functions were normal. Lab investigations were normal. FNAC of swelling showed tiny group of oval to spindle shaped cell in background of RBC however final report was inconclusive. The swelling was exposed with Sistrunk incision. During dissection, the swelling did not appear to be arising from glandular tissue of superficial or deep lobe and despite meticulous dissection, facial nerve trunk could not be identified. Since swelling appeared well circumscribed and capsulated it was enucleated. During enucleation, a thin nerve was burying into the tumor, preventing its complete removal. So, it was cut and tumor delivered. Swelling was approx 4 x 3 cm in

size, homogenous on cut section. Postoperatively patient showed partial facial palsy. On last follow up patient significantly recovered with the help of physiotherapy. Histopathological examination revealed Neurilemmoma.

DISCUSSION

Schwannomas or neurogenic tumors of salivary glands are very rare. Intraparotid schwannoma presents as a slowly growing non-tender parotid swelling without facial weakness (80%)⁶. Most authors find it difficult to establish a correct preoperative diagnosis of facial nerve neurilemmoma^{6,7}. Conley and Janecka reviewed 17 patients with 23 neurilemmomas of the facial nerve and in only three cases a correct pre-operative diagnosis was made⁶. Out of these, 17 patients had intratemporal neurilemmomas but those tumors presenting as parotid masses were all misdiagnosed as primary parotid tumors⁶. FNAC has a high diagnostic specificity in primary parotid tumors. Balle and Graisen, reported two cases who had FNAC performed a total of five times, 4 of these were nondiagnostic, while in fifth there was a suspicion of adenolymphoma⁵. Neurilemmomas in parotid region are too rare to be suspected if FNAC turns out to be nondiagnostic (as was seen in this case). Usually, neurilemmomas arise from main trunk or branches of facial nerve as they course through parotid gland. Since the facial nerve trunk was not identified despite meticulous dissection in the present case origin from the trunk cannot be ruled out; as also, a thin nerve was seen burying into the tumor, this could have well arisen from this branch also rarely, the tumor might be found to have no relation with facial nerve or its branches⁸. Neurilemmomas of lateral region of neck are frequently not found to be associated with any large nerve, Nerve of origin was identified in only in 22 out of 80

cases of neurilemmomas of lateral cervical region^{1,9}. Das Gupta et. al. among 136 cases of solitary schwannomas of head and neck, found only 10 lesions in parotid region and in majority of their cases the nerve of origin could not be ascertained¹⁰. Neurogenic tumors should be suspected intraoperatively when they are inseparable from the nerve and electrical stimulation of the tumor elicits facial movement.

On gross examination, the tumor is well encapsulated. The cut surface is relatively homogenous and glistening. The

tumor is often adherent to the nerve. Microscopically, the tumor shows two patterns, Antoni Type A i.e. cells are spindle shaped, compactly arranged with long oval nuclei oriented with their long axis parallel to each other (nuclear palisading) and Antoni Type B i.e. with less cellular areas, reticular, with cells showing vacuolation and xanthomatous change. The blood vessels show hyalinised walls. Surgical resection remains the definitive treatment. Rarely, sacrifice of the nerve may be necessary to achieve complete resection.

References

Author Information

Jaspreet Singh, M.B.B.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
jaspreet.pgims@gmail.com

Pradeep Garg, M.S, D.N.B

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
drpradeepgarg@rediffmail.com

Surender Verma, M.S.

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
drsurn@yahoo.com

Sourabh Aggarwal, M.B.B.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
draggarwalsourabh@gmail.com

Amit Narang, M.B.B.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
drnarangamit@gmail.com

V.S Rathee, M.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India

Kaviraj Kaushik, M.B.B.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India
kabirapgims@rediffmail.com

Naveen Verma, M.B.B.S.

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India

Sunil Kumar Yadav, M.B.B.S

Department of surgery, Pt. B. D. Sharma Post Graduate Institute of Medical Sciences
Rohtak, Haryana, India