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Case Report

An unusual giant schwannoma over face diagnosed on FNAC: a case report

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ABSTRACT

Schwannoma is a slow growing benign peripheral nerve sheath tumor arising from schwann cells. It is also known as neurilemmoma. Although it is common in the head and neck region, it rarely exceeds 10 cm in size. Usually Schwannomas are not larger than 5 to 6 cm in diameter. Large tumors are uncommon and are found in posterior mediastinum or retroperitoneum. We are presenting an unusual giant cell schwannoma over face (cheek) measuring 12×10 cms in size which caused facial deformity to the patient. The tumor was diagnosed on FNAC where cell block was prepared and IHC was done which showed S-100 positivity. This size schwannoma over cheek site has not been reported in the literature as far our knowledge. Therefore this case is unique for its size over face.

Keywords: Giant schwannoma, Face schwannoma, Unusual schwannoma, Cell block, FNAC schwannoma, Cheek swelling

INTRODUCTION

Schwannoma is a slow growing benign peripheral nerve sheath tumor arising from schwann cells. These tumors are also known as neurilemmoma. Although it is common in the head and neck region, it rarely exceeds 10 cm in size. It may arise from cranial and spinal nerve roots or from peripheral nerves, but has a predilection for sensory nerves. These tumors usually present as a slow growing nodular mass and can mimic any benign growth in the head and neck region. Conservative surgical excision is the treatment of choice and there is no recurrence if the tumor is completely excised.[1] The prognosis is good and malignant transformation of benign schwannoma has been controversial. This paper describes a rare case of giant schwannoma over left cheek which presented as a slow growing swelling measuring 12×10 cm at presentation.

CASE REPORT

A 32 year old female, labourer by occupation was brought to hospital by some unkown person. The patient presented with a large soft tissue swelling measuring 12×11 cm on her left cheek since 6 months (Figure 1). Due to pressure effect of the swelling, her mouth and nose were slightly deviated to the right side leading to facial deformity. The swelling was firm, non tender with normal external surface but skin was tense with prominent blood vessels. There was no history of pain or paresthesia. There was a clinical suspicion of giant schwannoma. CT scan head and neck was done which revealed a large diffuse heterogenous mass on left side of face (Figure 2). Fine needle aspiration cytology (FNAC) of the swelling was performed and smears and cell block were prepared in the cytology laboratory. Giemsa stained smears were cellular and showed loose clusters of cells in a myxoid background (Figure 3). The cells are oval to

spindle shaped with bent nuclei and show mild pleomorphism. Nuclear palisading (verocay bodies) was also seen (Figure 4). No cellular atypia or mitosis seen in the smears. Section from the cell block showed spindle shaped tumor cells in fascicles with myxoid areas (Figure 5). Verocay bodies were well appreciated. Immunohistochemistry was done on the block and showed diffuse S-100 positivity (Figure 6). Based on these findings, a final diagnosis of giant schwannoma, left cheek was given.

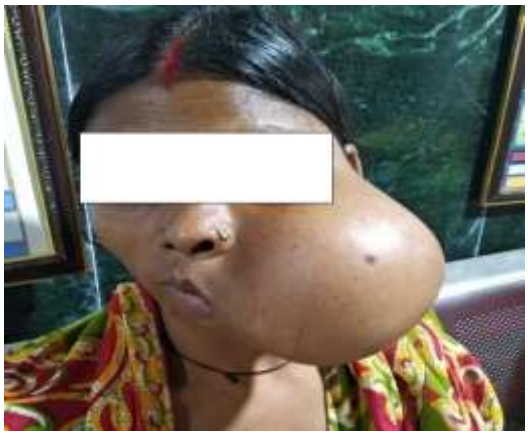

Figure 1: Patient presenting with 12×10 cms swelling over left cheek.

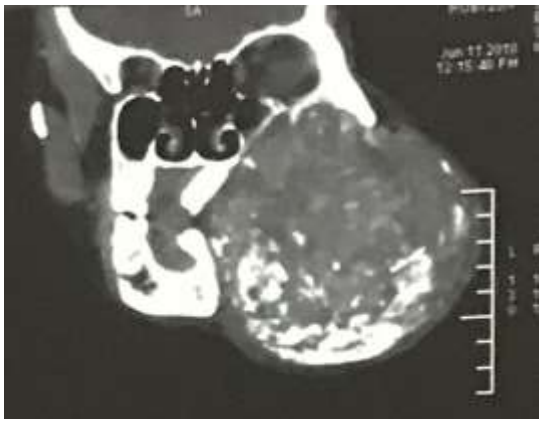

Figure 2: CT head and neck showing a large diffuse heterogenous mass on left side of face.

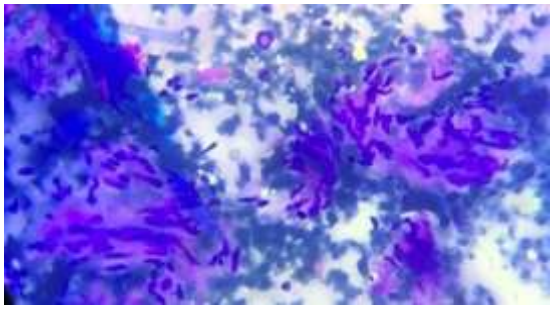

Figure 3: Cytological smear showing loose clusters of oval to spindle cells in a myxoid background (Giemsa stain, 40X).

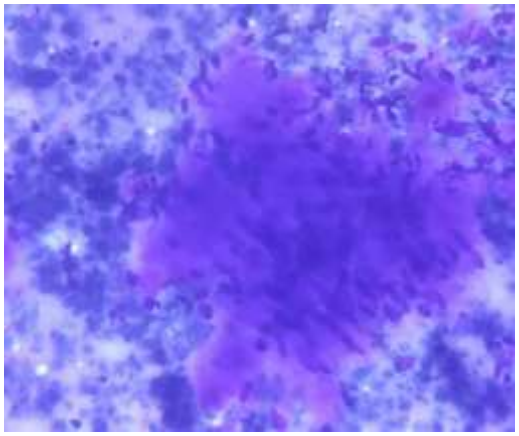

Figure 4: Cytological smear of schwannoma showing typical verocay body (Giemsa stain, 20X).

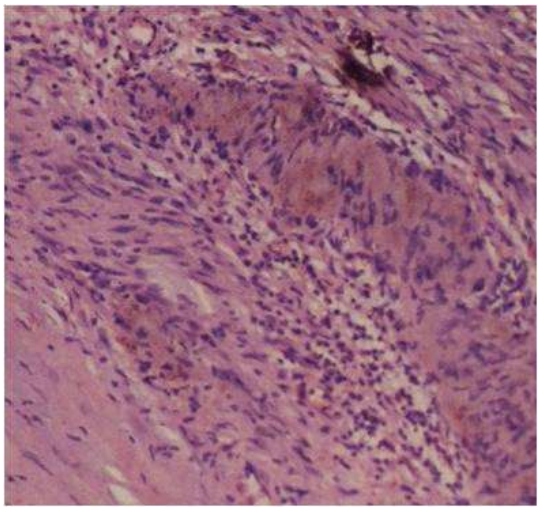

Figure 5: Section from cell block showing spindle cell tumor in fascicles, showing prominent varocy bodies (HnE stain, 40X).

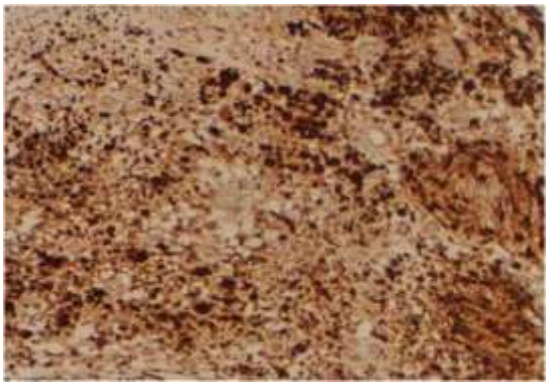

Figure 6: IHC showing diifuse S-100 positivity.

DISCUSSION

Schwannoma is a slow growing benign neoplasm with most common location in the head and neck region. It commonly occurs in female patients between 20 and 50

years of age.[2] These tumors have characteristic histological appearance with dimorphic growth pattern comprising of Antoni A (hypercellular areas) and Antoni B (hypocellular areas) with lack of mitotic figures. Rarely mitotic figures are seen in schwannoma. In such cases, encapsulation of the tumor differentiates schwannoma from malignant nerve sheath tumor. Despite being neural most of the tumors are painless. The tumor was painless in our patient too. Usually Schwannomas are not larger than 5 to 6 cm in diameter.[3] Large tumors are uncommon and are found in posterior mediastinum or retroperitoneum.[4] Other than retroperitoneum and posterior mediastinum, case reports for giant schwannomas have been described in foot, sacrum, spinal,upper and lower limbs.[5-8] Our case of giant schwannoma measuring 12×10 cms is unique for its size over the cheek. Important clinical differential diagnosis of swelling over cheek include salivary gland lesions, lipoma, hemangioma, fibroma, rhabdomyoma, rhabdomyosarcoma, LCH etc.

Such a large size schwannoma has not been previously reported in the literature at the cheek site according to our knowledge. The location of schwannoma over face could be within the lower part of orbit maxillary sinus or it could also present as sub cutaneous swelling in infra-orbital region depending on the site of nerve trunk or branch of origin of tumor.[9-11] Schwannoma can rarely be seen within the parotid gland (intraparotid schwannoma), usually less than 5 cms in size. Such schwannomas are often misdiagnosed as pleomorphic adenoma on FNAC when characteristic cytological features of schwannoma are lacking. The treatment of schwannomas is exclusively surgical with rare malignant transformation and recurrence. Due to characteristic cytological features and S-100 positivity on cell block, we made a definite diagnosis of giant schwannoma. However in lack of characteristic cytological and immunohistochemical features of schwannoma on microscopically, other spindle cell lesions including neurofibroma, solitary fibrous tumor, benign fibrous histiocytoma, Langhans cell histiocytoma and malignant peripheral nerve sheath tumor (in presence of atypical cells) need to be ruled out. Due to incomplete excision, recurrence of infraorbital has been reported.[12] In our case we could not follow the patient as she did not come back to hospital for excision of the tumor.

CONCLUSION

Schwannoma over face rarely exceed 5cm in diameter and we have reported unusual giant schwannoma of 12×10 cms size on left cheek. Diagnosis was made on FNAC where cell block and IHC helped out in making early and definite diagnosis.

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