



AURAL POLYP - AN UNUSUAL PRESENTATION

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ABSTRACT Facial nerve schwannoma is a rare benign tumor arising along the course of the nerve. In clinical practice, FNSs are rarer than vestibular schwannomas, with incidence from 15.5 to 22.1 per million per year. An unusual case of facial schwannoma presenting as aural polyp is reported in a 43yr old male, who presented with facial weakness for 6 months and hard of hearing for 3 months. CT and MRI of temporal bone revealed a mass arising from the middle ear from the horizontal part of the facial nerve without any intracranial extension, for which excision was done along with mastoidectomy and specimen sent for biopsy, which confirmed it as facial schwannoma. Facial nerve reconstruction is planned at later date. We are presenting this case because of its rarity.

KEYWORDS : Facial nerve, Facial nerve schwannoma.

INTRODUCTION

An aural polyp is soft to rubbery, reddish mass that typically presents within the external auditory canal (5). A polyp is usually the result of inflammatory proliferation and its presence signifies active disease. It arises from middle ear or external auditory canal. Common sites are promontory, tympanic ring, around eustachian tube opening, attic space, facial nerve and mastoid antrum. Most commonly seen in CSOM with AAD(4). Incidence of cholesteatoma presenting as aural polyp is 25 to 45% (5). An enlarging glomus jugulare tumor, middle ear adenocarcinoma and facial nerve schwannoma can present rarely as aural polyp (5) Malignant parotid tumor can invade EAC, Nasopharyngeal tumor through eustachian tube can present as polyp; primary malignant melanoma, SCC, Adenocarcinoma, rhabdomyosarcoma have been reported in the aural polyp (5). Histological diagnosis of aural polyp is important to exclude neoplasm or specific granulomatous disease and secondly to avoid inappropriate surgical exploration (5). We took this case because of rare presentation of facial nerve schwannoma as aural polyp. facial nerve schwannoma is much rarer than vestibular schwannoma with incidence from 15.5 to 22.1 per million per year (6-8). Facial nerve schwannoma usually presents as facial weakness 41% to 82%, Facial twitching or spasms were reported in 26%, parotid swelling, hearing loss, vertigo, etc. Mostly occurs between the age group of 43-60 years and it is a slow-growing tumor (9).

CASE REPORT

A 43-year-old male patient presented to ENT OPD with complaints of deviation of angle of mouth to the left side for 6months, inability to close right eye for 6 months, decreased hearing of right ear for 3 months, right ear discharge for 3 months, ear pain-on and off, for 3 months, aural fullness for 3 months.



Fig 1 Shows Loss Of Nasolabial Fold On Right Side And Deviation Of Mouth To Left

Ear examination of the right ear shows aural polyp of size 0.7 cm *0.8cm mass arising from the middle ear protruding through the tympanic membrane, pale grey in color, nonpulsatile. Probe test shows firm mass, sensitive to pain, doesn't bleed on touch, able to pass the probe all around the polyp. Fig 2.



Fig 2: Shows A Polyp In External Auditory Canal

Motor examination

Right side of the face

- Unable to raise the eyebrow
- Unable to close the eyes tightly
- Deviation of mouth to left side
- On blowing of cheeks air leak present
- Unable to whistle
- Unable to stretch the neck

Left Side Of The Face- normal.

Sensory and autonomic system examination shows

Chorda tympani: anterior 2/3 of the tongue, taste sensation was absent,

Schirmer's Test: 7mm, and sensation over the concha and posterior auditory tube were lost.

HOUSE BRACKMAN CLASSIFICATION shows grade 4 - moderately severe dysfunction.

CT scan shows mass filling the middle ear antrum and EAC along with the erosion of the Scutum, Facial canal, and jugular fossa. MRI shows mass arising from the facial nerve, possibly from the geniculate ganglion and horizontal part of the facial nerve and not extending into the internal auditory canal and no intracranial extension. fig.3.

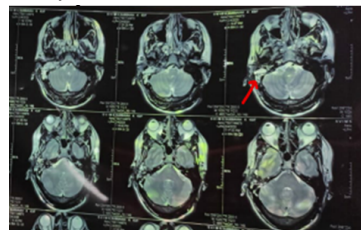


Fig.3 Shows MRI Of The Patient Showing Mass In The External Auditory Canal And Middle Ear.

Pure tone audiometry was done which shows conductive hearing loss with AB gap, which rules out the involvement of vestibular nerve.

Under GA under aseptic precaution, MRM was done, middle ear cavity was explored and mass arising from horizontal segment was identified and excision of the horizontal segment of facial nerve along with partial excision of the tumor was done. Facial nerve reconstruction has been planned at later date. Excisional biopsy shows Spindle-shaped Schwann cells arranged in compact hypercellular areas, ANTONI A cells. Nuclear palisading around the fibrillary process- verocay bodies which prove it to be facial nerve schwannoma. Post op facial nerve function did not improve as it was excised

DISCUSSION

FACIAL SCHWANNOMA is a rare tumor of the middle ear. This lesion can occur anywhere along the course of facial nerve from CP angle to terminal branches and can mimic acoustic neuroma. Majority is intratemporal and less than 9% arising from intraparotid (1). Prevalence rate of facial schwannoma is 1/23000. (3). The cell of

origin is the Schwann cell which makes these nerves insulated and myelinated. Most commonly sporadic, familial cases were more aggressive.

Common presentation: most common site is geniculate ganglion; multiple segment involvement is more common (2). The most common presentation is slowly progressive facial nerve palsy. It can also present as sudden onset hemifacial spasm and facial palsy. Sensorineural hearing loss and tinnitus are later symptoms due to compression of the eighth nerve, if it involves the internal auditory canal. It occurs with equal incidence in both males and females. Mostly grows at the rate of 2mm/year (9).

Investigation

Diagnosis is established by CT scan in which a large expansile lesion is seen replacing the geniculate ganglion is often seen. MRI is needed to assess the intracranial extension. MRI with high-resolution images through the IAC and temporal bone with or without gadolinium contrast is the investigation of choice for facial schwannomas. Facial schwannomas, like vestibular schwannomas, shows enhanced, well-circumscribed lesions that are most commonly T1 isointense and T2 hypointense. T1-enhanced images may be used to find any enhancement along the intratemporal course of the facial nerve and pathologic enlargement of the nerve. Histopathology confirms the diagnosis. s-100, HMB45, MelanA will be positive in schwannomas

Treatment

Recommended treatment for this, apart from observation, for tumor which is small in size without facial paresis, is complete excision of tumor together with the involved segment of facial nerve based on the degree, site, and duration of the disease (3). Primary grafting is performed, if not, cable grafting is the procedure of choice. Decompression and stereotactic radiotherapy are other treatment options.

CONCLUSIONS

Aural polyp usually arises from the tympanic membrane, middle ear, facial nerve, tympanic ring, external auditory canal.

So avulsion of aural polyp should not be done without doing imaging studies.

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