



ACOUSTIC NEUROMA-A CASE REPORT

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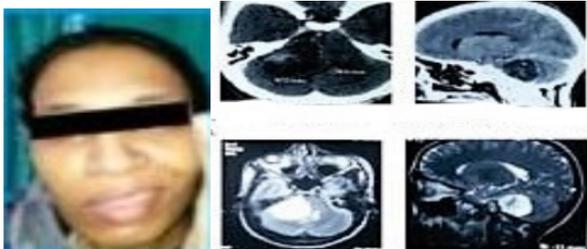
KEYWORDS :

INTRODUCTION:

Acoustic neuroma is a benign tumor arising from abnormal excessive proliferation of schwann cells enveloping the lateral portion of vestibulocochlear nerve in the internal acoustic meatus and therefore it is also known as **vestibular schwannoma**. It is a very rare tumor with incidence of 0.001% seen between ages of 30-60 yr and comprises of about 6% of all intracranial tumors however 80% of all cerebellopontine angle tumors are acoustic neuromas. Unilateral progressive sensorineural hearing loss, tinnitus and giddiness are most common presenting features. MRI is the investigation of choice. conservative management is considered in initial stage while in later stage stereotactic radiotherapy and microsurgical removal of tumor is considered.

CASE REPORT:

A 35 year old female patient presented to our department with gradually increasing right ear deafness since 2 years, giddiness since 3-4 months, right ear tinnitus since 3-4 months and weakness, tingling and numbness over right side of face since 3-4 months. Otoscopic examination revealed normal tympanic membrane on both side. right side facial palsy grade IV with reduced sensation along distribution of trigeminal nerve and absent corneal reflex. Nystagmus was present with fast component in left lateral gaze and slow component in right lateral gaze. Pure tone audiometry showed right ear moderate to severe sensoryneural hearing loss. CT SCAN showed 40*36*32 mm sized space occupying lesion in right cerebellopontine angle compressing fourth ventricle and widening of right internal acoustic meatus. MRI was done which confirmed the CT SCAN findings.



Patient was thoroughly explained about the nature, prognosis and sequelae of disease and was operated by retrosigmoid approach with near total excision of tumor mass. Histopathological examination confirmed the diagnosis of acoustic neuroma and patient was kept in regular clinical and radiological follow up. Post operatively, symptoms of giddiness and tinnitus improved whereas deafness and facial palsy neither showed improvement nor deterioration.

DISCUSSION:

Acoustic neuromas are rare, slow growing benign tumors of vestibulocochlear nerve arising from the schwann cell sheath which envelops the nerve near the internal acoustic meatus. Most commonly involved nerve is vestibulocochlear nerve followed by trigeminal and facial nerve.

Etiology still unknown, recent studies indicate a defect in chromosome 22q may be responsible for both unilateral sporadic as well as bilateral vestibular schwannoma in type 2 neurofibromatosis. These tumours are classified according to size as small (1-10mm), medium (11-20mm), moderately large (21-30mm), large (31-40mm) and giant (>40mm) respectively. Symptoms include unilateral gradually progressive hearing loss associated with tinnitus and giddiness. As the size increases symptoms due to facial and trigeminal nerve compression appear. A large tumor may cause cerebellar compression leading to ataxia. Eventually it may become giant enough to compress brainstem and ventricle leading to hydrocephalus which manifests as severe headache, loss of vision. INVESTIGATIONS include pure tone audiogram, CT scan and MRI.

TREATMENT involves observation and regular follow up, Surgery and Radiotherapy depending upon the size of tumor.

Differential diagnosis of acoustic neuroma includes meningioma, epidermoid in which hearing loss is less prominent and no internal acoustic meatus enlargement seen on MRI; facial nerve schwannoma where facial weakness appears early and more marked; trigeminal schwannoma with prominent facial numbness and dumbbell shaped mass over meckel's cave is seen in MRI.

CONCLUSION:

Acoustic schwannoma is a benign tumor which commonly presents with unilateral hearing loss along with tinnitus and giddiness. Facial nerve dysfunction is rarely the presenting symptom. MRI is the gold standard of investigation. Treatment recommendations vary depending upon health, age of patient, size of tumor.