Cerebello Pontine Angle Abscess Simulating Vestibular Schwannoma: A Case Report and Literature Review

Cerebellopontine angle (CPA) space occupying lesion (SOL) presenting as an abscess is rare. Inflammatory lesions that may cause a syndrome of cerebellopontine angle are mostly referred to as arachnoiditis. Tuberculomata and gummata also may be considered. Tuberculoma developing in the cerebellopontine angle simulating acoustic neuroma is rare. The only reference found in the literature was a report by Elkins and Rack. In the cases reported by Rosenthal the lesions were primarily tuberculomata of the pons that extended towards the region of the cerebellopontine angle.

Finally, chronic abscesses may also be located in the pontomedullocerebellar space. As the following case will show, their clinical picture may not be easy to distinguish from that produced by tumors in the same location.

We describe a case of a pyogenic abscess in the CPA region, occurring in a 54 year-old male presenting with typical features of a vestibular schwannoma.

Keywords: cerebellopontine abscess, staphylococcus aureus, vestibular schwannoma

Vestibular schwannoma is the most common tumors encountered in the cerebellopontine angle (CPA) region, accounting for 90 per cent of all lesions. Pyogenic abscess presenting as a CPA space occupying lesion (SOL) is rare. We describe a case of a pyogenic abscess in the CPA region, occurring in a 54 year-old male presenting with typical features of a vestibular schwannoma.

Case report

A 54 year-old married nonhypertensive nondiabetic male presented with left sided progressive hearing loss and tinnitus of 10 year duration. He also complained of left sided headache, difficulty in walking, tremor in the left upper limb, double vision on looking to the left and decreased sensation over the left side of the face of 1 week duration. There was no history of ear discharge, fever, sinusitis, trauma, tuberculosis.

Examination revealed hypoesthesia in left V1 and V2 distribution, diminished corneal reflex, left sensorineural type deafness with Weber’s lateralized to the right ear and hypoexcitability of the left vestibularis on caloric test, left cerebellar signs and left lower motor neuron facial paresis was present. No evidence of papilloedema.

Skull roentgenograms revealed no alterations in the internal acoustic meatus or in the foramen lacerum postericus. Magnetic resonance imaging of the brain revealed mixed intensity lesion with ring enhancement in the left cerebellopontine angle with a cyst laterally (Figure 1).

Mantoux test showed no induration and HIV ELISA was negative. Chest x – ray was unremarkable. CT chest revealed normal study. Lumbar puncture revealed Lymphocytosis 84 % with increased protein. Repeat CT scan done after 1 week showed the appearance of a new lesion in the pons (Figure 2).
After preoperative evaluation the patient was taken up for retrosigmoid craniectomy and aspiration of lesion. During surgery a large encapsulated mass of the size of a walnut was noticed. Tapping through its smooth surface showed that the lesion was a multilocular abscess and was found containing yellow pus. Post operative gram staining of the pus revealed pus cells with gram positive cocci. The dural incision was closed tightly and the wound closed in the usual manner. Bacteriological report showed gram positive cocci as *staphylococcus aureus*.

A diagnosis of Cerebellopontine angle abscess with intrinsic brain stem was made. Neurological symptoms improved with appropriate antibiotics. CT scan brain with contrast done 2 months later shows a very small residual lesion (Figure 3).

**Discussion**

This case shows that a clinical picture is very similar in both acoustic neuroma and pyogenic lesion of Cerebellopontine angle.

In the above case the course was completely apyretic. The lesion was clinically considered as a vestibular schwannoma. Presentation of a cerebellopontine angle abscess presenting as vestibular schwannoma is rare. In neurosurgical literature type of abscess presented herein was rarely found. In the classic work of Cushing on tumors of the nervus acusticus, the possibility of a chronic abscess was mentioned only in discussing the diagnosis but no case of abscess of the angle was presented.

The only few cases of abscesses which the writer can refer are those of Matson and Werner and 2 cases described by Tolosa. The existence of these lesions must be kept in mind since their chronic evolution and lack in the anamnesis of an apparent pyogenous process as etiological factor, make their distinction from neoplasm very difficult. It is improbable that examination of the cerebrospinal fluid may afford the clue to the diagnosis.
Regarding the pathogenesis of the abscess nothing definite may be said as otologic and roentgenographic examinations did not reveal gross pyogenic focus in the ear. From the standpoint of treatment, it is interesting to note that the patients recovered satisfactorily from operation and antibiotics and that primary healing of the wound was obtained.

References

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