Schwannoma

Schwannomas are benign tumors that arise from Schwann cells. They are also known as acoustic or vestibular schwannomas, and acoustic neuromas. They can cause symptoms due to local compression of the involved nerve or adjacent structures. These tumors commonly affect the vestibular branch of cranial nerve VIII and are located in the cerebellopontine angle. Schwann cells are neural crest derived and are S100 positive, which can help with tumor identification. Bilateral involvement of cranial nerve VIII is often a component of neurofibromatosis type 2. Affected individuals commonly present with tinnitus and hearing loss. Cranial nerve V can also be affected and individuals can demonstrate an altered corneal reflex.

PLAY PICMONIC

Characteristics

Acoustic Schwannoma

Acoustic-guitar-headphones on Swan-gnome

Schwannomas are commonly referred to as acoustic Schwannomas due to involvement of cranial nerve VIII.

Cranial Nerve VIII

(8) Ball

The tumor commonly affects the vestibular branch of cranial nerve VIII, causing tinnitus and hearing loss.

Cerebellopontine Angle

Silver-cerebellum-bell-pawn

The cerebellopontine angle is the area between the cerebellum and pons of the brainstem. Schwannomas most commonly occur in the cerebellopontine angle.

S100 Positive

S100-sign

Schwannomas are of neural crest origin and stain S100 positive which can help with tumor identification.

Bilateral Schwannoma in Neurofibromatosis Type 2

Bi-ladders with 2 Neuron-Fabios

Bilateral involvement of cranial nerve VIII is often a component of type II Neurofibromatosis.

Tinnitus

Tennis-ball-ringing-ear

Ringing in the ears is a common presentation of Schwannomas when they affect cranial nerve VIII.

Cranial Nerve V

(5) Hand

The trigeminal nerve is responsible for sensation and certain motor functions of the face and can also be affected.

Affects Corneal Reflex

Corn-eyes

Involvement of cranial nerve V can alter the corneal reflex, which is also known as the blink reflex. The corneal reflex is an involuntary blinking of the eyelid elicited by stimulation of the cornea. The sensory input is mediated by the ophthalmic branch of cranial nerve V and therefore the corneal reflex can be altered when there is a Schwannoma on cranial nerve V.