

ID: 134

Educational Abstract

Topics: Neuroradiology

Keywords: Cranial nerves, Neurovascular compression syndrome, Neurovascular conflict, MRI

Imaging Findings In Cranial Nerves Neurovascular Compression Syndromes: Cases Illustration

Ho Lim William Wong, Hin Yui Lau

Tuen Mun Hospital, Hong Kong S.A.R.

Thanks to the advance in development of imaging technology, neurovascular compression syndrome or neurovascular conflict (NVC) are increasingly recognized as a cause of several common cranial nerves hyperactivity syndromes, including trigeminal neuralgia, hemifacial spasm and glossopharyngeal neuralgia. Studies have also shown that some cases of tinnitus and positional vertigo may also be entities in the clinical spectrum.

Neurovascular compression syndrome occur when a blood vessel directly contact with a cranial nerve, causing mechanical irritation. The offending arterial loops are commonly originating from the posterior inferior cerebellar artery (PICA), anterior inferior cerebellar artery or vertebra-basilar artery. In as many as 40% of cases the compression site may be multiple.

High-resolution 3D T2-weighted MRI sequences such as CISS; FIESTA; balanced steady-state free precession, are considered the standard imaging studies for the detection of neurovascular compression (NVC). With the following cases we aimed to showcase some typical findings of neurovascular conflict in MRI.