

Approach to trigeminal neuralgia

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Trigeminal neuralgia (TN) is described as recurrent short-lasting electric shock episodes of pain in the distribution of the trigeminal nerve, which can be triggered by innocuous stimulation. Most cases of TN are caused by compression of the root entry zone, particularly by an aberrant loop of the artery or vein. Presenting with bilateral TN, being young, and having sensory deficits in the distribution of a trigeminal nerve, can be the red flags of secondary TN. Some conditions include cracked teeth, caries/pulpitis, dry socket, temporomandibular joint disorders, giant cell arteritis, sialadenitis, first bite syndrome, primary stabbing headache, postherpetic neuralgia, other cranial neuralgia, and SUNA/SUNCT can mimic TN. Regarding the diagnosis of TN, Brain MRI with IV contrast and high-resolution thin cuts of the posterior fossa is the preferred paraclinical evaluation. Brain MRA can show additional visualization of arteries. The usefulness of trigeminal reflex testing applies to patients with secondary trigeminal neuralgia. Pharmacological treatment either with carbamazepine (200 mg/d to 1200 mg/d) or oxcarbazepine (300 mg/d to 1800 mg/d) is the mainstay of the initial treatment. Weak evidence shows that Lamotrigine, gabapentin, or onabotulinumtoxinA injections, followed by eslicarbazepine acetate, baclofen, topiramate, valproate, levetiracetam, and phenytoin, can be alternatives to carbamazepine. For urgent treatment of patients with refractory TN, IV lidocaine, IV fosphenytoin, or peripheral blocks may be required. Patients who are refractory to medical therapy should be referred to a neurosurgeon. If neurovascular compression is evident in brain imaging, microvascular decompression is considered first. If not, a neuro ablative procedure is considered.