

Vidian Nerve Neuralgia □ **Definition** Vidian nerve neuralgia is a rare and somewhat controversial facial pain syndrome characterized by deep, poorly localized facial pain, often involving the retroorbital, nasal, or palatal regions. It is attributed to irritation or dysfunction of the vidian nerve (also known as the nerve of the pterygoid canal).

The vidian nerve is formed by the convergence of:

The greater petrosal nerve (carrying parasympathetic fibers from the facial nerve)

The deep petrosal nerve (carrying sympathetic fibers from the internal carotid plexus)

These fibers travel through the pterygoid canal and synapse (or pass near) the pterygopalatine ganglion, which connects to multiple branches involved in facial innervation.

□ **Clinical Presentation** Deep, burning or dull facial pain, typically:

Retroorbital

Posterior nasal cavity

Palate

Pain may be paroxysmal or continuous

Associated autonomic symptoms may include:

Rhinorrhea

Nasal congestion

Lacrimation

Palatal fullness or discomfort

Often, symptoms mimic other headache or neuralgic syndromes (e.g., cluster headache, Sluder's neuralgia), making diagnosis challenging.

□ **Diagnosis** Diagnosis is primarily clinical, but may involve:

Exclusion of more common causes (e.g., trigeminal neuralgia, sinus pathology)

Imaging (MRI/CT) to rule out structural lesions affecting the pterygopalatine fossa or vidian canal

Diagnostic vidian nerve block (transnasal, transoral, or CT-guided approach) may help confirm the diagnosis if pain relief is achieved

□ **Differential Diagnosis** Trigeminal neuralgia (V2)

Sluder's neuralgia (pterygopalatine ganglion neuralgia)

Atypical facial pain

Cluster headache

Sphenopalatine neuralgia

Sinusitis (chronic or sphenoid-specific)

⚙ Management Options Conservative:

Neuromodulatory medications (e.g., carbamazepine, gabapentin, tricyclics)

Nasal sprays or topical anesthetics

Avoidance of triggers (when identifiable)

Interventional:

Vidian nerve block (diagnostic and therapeutic)

Vidian neurectomy:

Typically via endonasal endoscopic approach

Considered in refractory cases

Risks include dry eye, nasal crusting, and loss of mucosal secretion control

□ Key Points for Residents Rare condition: diagnosis of exclusion

Knowledge of vidian nerve anatomy and pterygopalatine fossa relationships is critical

Therapeutic intervention is controversial and usually reserved for severe, treatment-resistant cases

Can be confused with other forms of facial pain — understanding the autonomic symptom profile helps distinguish it

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