

Phantom Tooth pain, is it Often a Trigeminal Neuralgia?

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Toothache, buccal pain, facial pains are common presentations in dental clinics. Among them, phantom tooth pain always hits as a trigeminal neuralgia. Though classical picture of trigeminal neuralgia usually does not present with solo toothache, which may sometime masks the whole scenario.

About 22% of general population suffers from orofacial pain with high morbidity and 1/3rd of them attend an orofacial pain clinic.¹ Most of the patients might not have pain relief even after several dental procedures. Atypical facial pain was first acknowledged by Frazier and Russell to distinguish from trigeminal neuralgia.²

Paroxysmal, sharp, lancinating, electric shock like unilateral facial pain favors the diagnosis of trigeminal neuralgia. Pain lasts up to few seconds and often triggered by sensory stimuli. It confines to the distribution of one or more sensory branches of trigeminal nerve on one side of the face. The main reason for trigeminal neuralgia is neurovascular compression at root entry zone of the trigeminal nerve complex. "Ignition theory" is the common hypothesis signifies the dysfunction of trigeminal afferent neurons. When those neurons get injured, result in hyper excitation causing typical craniofacial pain.⁴

Phantom tooth pain is persistency of the pain despite tooth extraction. Tooth has been gone but tooth pain is still constant with no identifiable cause. It is also termed as an atypical or idiopathic

odontalgia. It is an interruption of the afferent connections of neurons, so called deafferentation pain syndrome. The pain usually extends to facial structures adjacent to the tissues that have undergone deafferentation.³ Patients usually come with persistent pain and numbness in teeth, gum, face and other oral structures. It has been proposed that after differentiation injury, organization and activity of the central and peripheral nerves can be changed resulting into chronic pain syndrome.¹

The mechanism of orofacial pain is the demyelination of nerve fibers causing firing and hyperactivity. When triggering factors or stimuli like light touch, swallowing, exposure to cold or hot substances occurs, emphatic transmission causes severe sharp shooting pain.⁵ Although many several diagnostic criteria for the atypical facial pain have been proposed, however it remains as an idiopathic after excluding the cranial and cervical pathologies.

References:

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