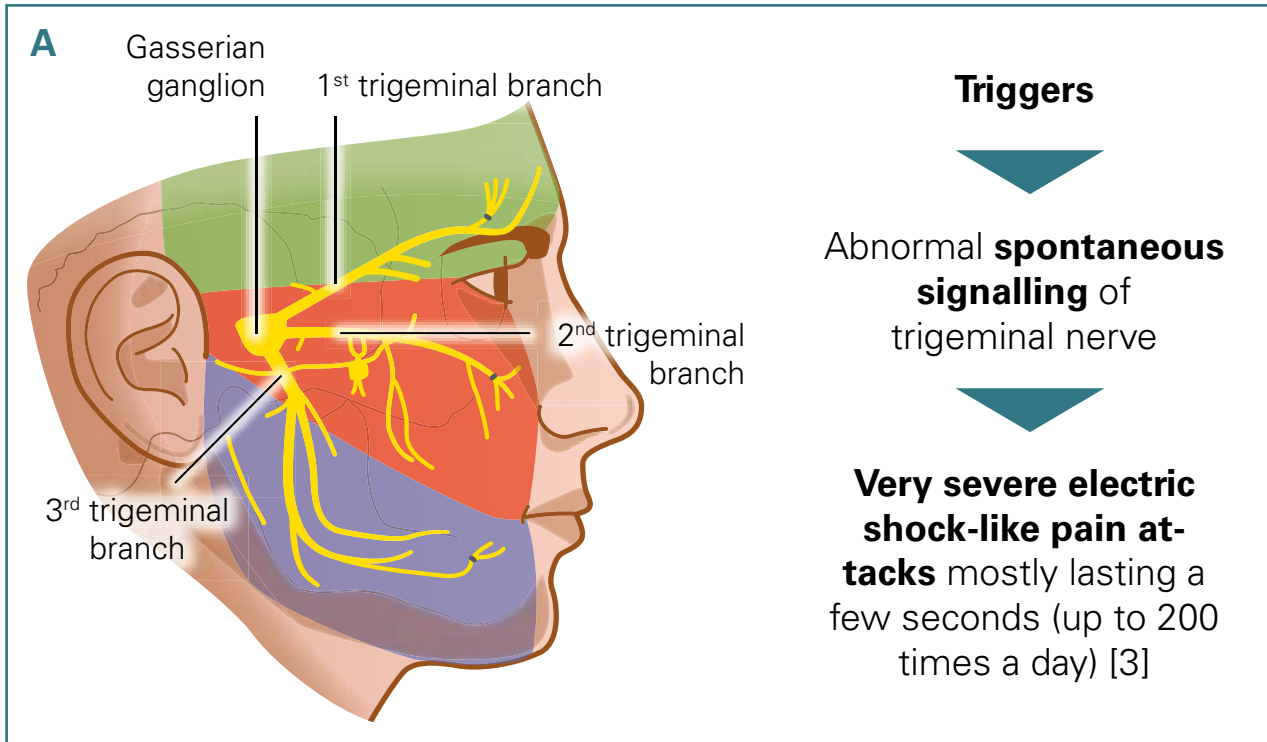


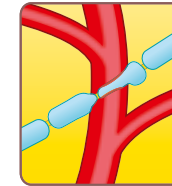
Trigeminal neuralgia [1]

Development and symptoms [2]



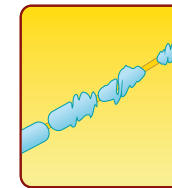
Forms and causes

B



Classical

Suspected cause: blood vessels press on nerves.



Secondary

Cause: another disease such as multiple sclerosis or herpes zoster leads to nerve damage.

Commonly no trigger can be identified.

Triggers

C



Chewing, swallowing, speaking



Draught



Cleaning teeth



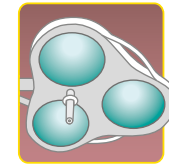
Touching particular regions of skin on the face

Treatment [4]

D



Epilepsy medicines, e.g. carbamazepine



Surgical procedures if medication is not sufficiently effective and if an operable cause is likely.

Trigeminal neuralgia [1]

A Development and symptoms [2]

The trigeminal nerve is responsible for both **sensitivity** in the face and control of the **facial muscles** (e.g. chewing).

In this neuropathic disorder, particular **triggers** cause abnormal spontaneous signalling in particular areas or branches of the nerve.

The signalling / damage / inflammation leads to **sudden, intense shooting pains in the area supplied by the trigeminal branch concerned** (forehead, upper jaw, lower jaw). Several areas or even half the face may be affected.

The pain usually lasts a few seconds. Several such attacks (up to 200) occur every day for weeks or months [3].

The attack is occasionally followed by **autonomic symptoms** in the area supplied by the trigeminal branch concerned: reddening, secretion of the lacrimal, nasal and/or salivary glands.

B Forms and causes

Classical: The suspected cause is a “trigemino-vascular mechanism,” which is promoted by the spatial proximity of blood vessels and nerve trunk. Nerve fibres are compressed.

Secondary: The cause is other diseases such as multiple sclerosis or herpes zoster, which lead to nerve damage.

C Triggers

Chewing, swallowing, speaking, cleaning teeth, draughts and touching particular regions of skin on the face (trigger zones).

D Treatment [4]

Classical trigeminal neuralgia as a neuropathic pain syndrome generally responds well to anti-epileptics (anticonvulsants) (first-line: carbamazepine and phenytoin*; second-line: pregabalin and gabapentin).

Surgical procedures can be considered if medication is not sufficiently effective or its efficacy declines.

A commonly used surgical procedure is microvascular decompression (Jannetta procedure), in which arteries and the cranial nerves which are in contact and causing pain are separated. A teflon sponge is placed between the blood vessels and nerves in the posterior cranial fossa.

* Phenytoin has been used for this condition but should only be used for second line treatment if carbamazepine cannot be used or is ineffective. (<http://www.medicines.org.uk/emc/medicine/26838/spc>)

[1] Jannetta P. Trigeminal Neuralgia. (2010) Oxford: Oxford University Press.

[2] Headache Classification Subcommittee of the International Headache Society. The international classification of headache disorders. Cephalalgia (2004) 24 (Suppl. 1): 1- 160.

[3] Krafft R. Am Fam Physician (2008) 77(9): 1291-1296.

[4] Oberman M. Ther Adv Neurol Disord (2010) 3(2): 107 – 115.