Trigeminal neuralgia medical treatment

Carbamazepine and oxcarbazepine continue to be first choice for Trigeminal neuralgia medical treatment, but have been supplemented by additional options such as pregabalin, lamotrigine, and Onabotulinum toxin A. In patients insufficiently responding to medical treatment, there are neurosurgical treatment options giving very good results. The best long-term results have been described for microvascular decompression, but percutaneous and radiosurgical treatments also are good options, especially in patients with an increased surgical risk profile, in secondary trigeminal neuralgia, and in case of recurrence after microvascular decompression [1].

Carbamazepine (CBZ) and oxcarbazepine (OXC) are first-choice medical treatments. Although other drugs may be effective, these are indicated when the patient cannot reach the therapeutic dosage of CBZ/OXC because of adverse events. Patients unresponsive to CBZ/OXC should be made aware of the available surgical interventions. Surgical procedures (including percutaneous lesions to the ganglion/root, microvascular decompression (MVD) in the posterior fossa, and gamma knife radiosurgery) are extremely efficacious with relatively few complications: each procedure has some advantage and disadvantage with respect to the other. Only MVD is a non-destructive procedure [2]

Although pharmacological therapy is the primary treatment modality for trigeminal neuralgia associated pain, ineffective analgesia and dose limiting side effects often prompt patients to seek alternative pharmacological solutions such as interventional nerve blockade.

The international guidelines on TN treatment recommend carbamazepine and oxcarbazepine as first line treatment based on clinical studies.

Other drugs used to treat TN have not been investigated to the same extent but some smaller studies showed promising results using pregabalin , lamotrigine , baclofen and gabapentin. In the international guidelines it is stated that “if any of these sodium-channel blockers (carbamazepine or oxcarbazepine, edt.) are ineffective, referral for a surgical consultation would be a reasonable next step” . However, the guidelines also state that “considering the relatively narrow mechanism of action of the available drugs (carbamazepine, edt.), combination treatments might be useful” .

Based on the clinical experience of Heinskou et al they agree with the international treatment guidelines although find that referral for neurosurgery after failed monotherapy may be too hasty and in general try out a combination treatment before referral to surgery. Unfortunately, the scientific support for combination treatment is sparse and there are no published studies directly comparing monotherapy with polytherapy.

They suggest that follow up on medical treatment should remain in the hands of experts until the condition is stable and the patient is familiar with the program of titrating up and tapering of medication according to the level of pain and side effects. They suggest that 2 years of follow up is appropriate, but this depends on the resources of the clinic and the health care system [3].

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2)

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3)

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