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## Trigeminal neuralgia: Radiofrequency treatment, glycerol rhyzolysis or surgery?

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Irigeminal neuralgia (TN) is a painful condition involving the face which can be severely disabling. Several types of invasive L (percutaneous treatments, surgical procedures) treatments are available. None of these treatments have been shown to be superior due to a lack of well-designed randomized controlled trials and conflicting results in the literature on observational studies regarding TN. Radiofrequency (RF) treatment is a minimally invasive, low-risk technique with a high rate of initial efficacy for treating TN and with high rates of side effects. Between 85% and 97% of patients report an initial effect of the RF ablation of the trigeminal ganglion. Pain recurrence rates are between 25% and 60%. Its disadvantages, however, include a high incidence of side-effects, large variability of effects and side effects, and a high rate of long-term failure. Empirical data on sensory stimulation thresholds, lesion time, and temperature during RF treatment, which could support making the most effective selection from the treatment options currently available, are lacking. Our study shows that there may be an optimum of sensory stimulation levels at 50 Hz during RF treatment of the trigeminal ganglion. Glycerol rhizolysis of the trigeminal ganglion is a safe procedure, which achieves a high rate of immediate initial pain relief with little or no alteration in facial sensory function in patients with trigeminal neuralgia. Earlier studies reported a success-rate between 59% and 94%. The reported recurrence rate at the end of 2 years after percutaneous glycerol rhizolysis of the trigeminal ganglion for trigeminal neuralgia is 39-41%. In the patient group with classical trigeminal neuralgia without third branch involvement, glycerol rhizolysis seems to be a highly appropriate percutaneous procedure. A prospective study on whether patient selection could improve the outcome of percutaneous treatments of trigeminal neuralgia is warranted. Further investigation of an optimal sensory stimulation range and an optimal temperature for percutaneous RF treatment of the trigeminal ganglion is advocated.

## Biography

Henk M Koning is an Anesthesiologist who worked more than 30 years in multidisciplinary pain relief. He has several national and international publications concerning anesthesiology, intensive care, trauma care and pain. In pain, his expertise is: low back pain, cervical pain, trigeminal neuralgia, painful feet, and tinnitus. He works in the Pain Clinic De Bilt, De Bilt, Netherlands.

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