

Comparative Evaluation of Percutaneous Retrogasserian Glycerol Rhizolysis and Radiofrequency Thermocoagulation Ablation Techniques in the Management of Ophthalmic branch in Idiopathic Trigeminal Neuralgia

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Background: Among the percutaneous procedures for the treatment of trigeminal neuralgia, percutaneous anhydrous glycerol rhizolysis (PRGR) and radiofrequency (RF) ablation of ophthalmic branch neuralgia have stood the test of time.

Objective: A retrospective study was conducted to compare PRGR and RF ablation techniques in patients with ophthalmic branch neuralgia in terms of (1) efficacy of pain relief, (2) duration of pain relief and (3) side effects.

Methods: All patients presenting to our pain clinic for the first time for the treatment of trigeminal neuralgia were enrolled to receive either PRGR or RF ablation; the treatment was chosen by the patient. The presence or absence of cerebrospinal fluid egress, immediate pain relief, duration of pain-free period, need for repeat injection, and recurrence of pain were also noted. The degree of pain relief was recorded every 3 months. Any complications during the procedure and

side effects were also recorded.

Results: Forty patients underwent either PRGR (n = 20) or RF thermocoagulation (n = 20). A total of 14 patients (70%) in the PRGR group and 8 patients (40%) in the RF group experienced excellent pain relief. The mean duration of excellent pain relief in the PRGR and RF groups was comparable. By the end of the study period, 30% patients in the PRGR group and 60% patients in the RF group experienced recurrence of pain.

Conclusion: Both PRGR and RF techniques can achieve acceptable pain relief with minimal side effects. But PRGR may serve as a first-line surgical modality for patients with first branch trigeminal neuralgia.

Keywords: Anhydrous glycerol, Radiofrequency thermocoagulation, Trigeminal neuralgia

