

Original Articles

Percutaneous Trigeminal Ganglion Compression for Trigeminal Neuralgia

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Objective: The aim of this study was to evaluate outcomes and complication rates associated with percutaneous trigeminal ganglion compression (PTGC), followed up for at least 5 years.

Methods: The authors report on 100 cases of trigeminal neuralgia treated by percutaneous trigeminal ganglion compression from June 2000 to June 2001. The operation was performed under general anesthesia with endotracheal intubation. Meckel's cave was cannulated with No.4 Fogarty catheter and the balloon was inflated for 70 to 90 seconds.

Results: A 5-year follow-up study was completed for all the 100 patients. Fifty-one patients (51%) were 65 years of age or above. Ninety-four patients (94%) were immediately relieved of their neuralgia after the procedure. Three patients had postoperative cheek hematoma. Thirty-three patients developed herpes simplex perioralis after the operation. Two patients had transient 6th nerve palsy, which subsided within 3 months. There were no major surgical complications, no anesthetic complications and no death. No pain recurred within 3 months. Thirteen patients (13.8%) had recurrent symptoms within 2 years. Fifteen patients (16%) had recurrent symptoms within 3 years. In all, 27 patients (28.7%) had recurrent symptoms over the entire 5-year study period.

Conclusions: PTGC is a technically simple, relatively noninvasive procedure that can be carried out under brief general anesthesia. The patients can tolerate well the treatment. The procedure, at present, is the first choice for those trigeminal neuralgia patients who are poor medical risks, who are above the age of 65, and who are unwilling to accept the risk of a posterior fossa craniectomy.

Key words: trigeminal neuralgia, percutaneous trigeminal ganglion compression

The percutaneous trigeminal ganglion compression (PTGC) technique, used for the treatment of trigeminal neuralgia, was introduced in 1978 and subsequently described in 1983 by Mullan and Lichtor.¹ Originally, the procedure was recommended for patients in whom other techniques had failed to relieve

trigeminal pain. More recently, PTGC has become widely indicated for the treatment of a variety of facial pains, thanks to its simplicity and safety.² The trigeminal ganglion compression procedure is indicated for all patients of typical trigeminal neuralgia. It is suggested, in particular that the patients who are poor medical risks,

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