INTRODUCTION

Trigeminal neuralgia is a debilitating condition which is characterized by bouts of electric shock-like pain that most commonly involves the second and third division of the trigeminal nerve. This condition is accompanied by paroxysmal attacks of pain that most commonly involves the second and third division of the trigeminal nerve. Though the procedure is simple there can be high chances of pain recurrence and neuroma formation. In our study we compare the peripheral neuroectomy and micro vascular decompression for the management of trigeminal neuralgia.

PATIENTS AND METHODS

This was a prospective study done in 10 consecutive patients reporting to department of neurosurgery from Jan 2010 to Dec 2012 which were divided in 2 groups. Group I received micro vascular decompression and Group II received peripheral neuroectomy. All patients had previously received a trial of tegretol for several years and 4 patients had received alcohol blocks sometime back. Patients were aged between 25 to 58 years with 6 males and 4 females. All patients were followed up for 3 years and no further complaints; micro vascular decompression offers and superior and effective management approach for trigeminal neuralgia when compared to peripheral neuroectomy. Selection of the patient is of utmost importance for choosing the appropriate management protocol.

Keywords: micro vascular decompression; trigeminal neuralgia; peripheral neuroectomy; facial pain; fothergill’s disease

ABSTRACT

Trigeminal neuralgia is a debilitating condition which is characterized by bouts of electric shock-like pain that most commonly involves the second and third division of the trigeminal nerve. This prospective study is done to compare the role of microvascular decompression and peripheral neuroectomies for the management of trigeminal neuralgia. Patients were divided in 2 groups from Jan 2010 to Dec 2012. Group I received microvascular decompression and Group II received peripheral neuroectomy. Group I patients had a complete pain relief except for minor complications like postoperative CSF leak which was seen in 1 patient. In Group II patients, 2 patients had returned to the department following recurrence of pain after 6th and 8th month respectively who were planned for microvascular decompression. All patients were followed up for 3 years and no further complaints; micro vascular decompression offers and superior and effective management approach for trigeminal neuralgia when compared to peripheral neuroectomy. Selection of the patient is of utmost importance for choosing the appropriate management protocol.

Keywords: micro vascular decompression; trigeminal neuralgia; peripheral neuroectomy; facial pain; fothergill’s disease
Peripheral neurectomy: Intraoral surgical technique was done for peripheral neurectomies. 3 patients had pain in mental nerve branch while 2 had in inferior alveolar nerve (Figure 2).

RESULTS
All patients were followed up for 3 years and no further complaints. There was no postoperative mortality and 9 out of eleven patients had no complications. Group I patients had a complete pain relief except for minor complications like postoperative CSF leak which was seen in 1 patient. It was controlled by conservative measures with antibiotic administration. In Group II patients, 2 patients had returned to the department following recurrence of pain after 6th and 8th month respectively who are planned for microvascular decompression (Graph 2). Thus the results showed that microvascular decompression is more versatile technique for the management of refractory pain in trigeminal neuralgia when compared to peripheral neurectomy due to high recurrences.

DISCUSSION
Nicholas Andre was the first person to coin the term “Tic douloureux”7. John Fothergill in 1774 presented the description of 14 cases he observed and correlated them trigeminal neuralgia2. Walter Dandy in 1934 suggested that a posterior fossa anomaly may be responsible for this problem and identified the major compressing vessel as anterior inferior cerebellar artery7. Trigeminal neuralgia is an incapacitating and debilitating condition. The most common central cause is vascular compression of the nerve (trigeminal nerve) root entry zone1,8. Trigeminal neuralgia must be differentiated from craniofacial/atypical facial pain. Conservative (medical) treatment consists of drug therapy, such as tegretol, lioresal, baclofen, Dilantin alone or in combinations3,9,10. For those who are suffering from refractory to such treatment, other procedures including retrogasserian rhizotomy11, compression-decompression of gasserian ganglion12,13, alcohol blocks13, peripheral neurectomy14,15, trigeminal tractotomy and stereotactic microcompression of gasserian ganglion are alternate methods available. However, complications of these procedures include significant facial numbness and masseter weakness13. Microvascular decompression is very effective and relatively safe procedure for majority of patients with intractable neuralgia that has failed to respond to medical treatment or any other procedures. In our group II case 2 patients reported back with recurrence of pain and are subjected for microvascular decompression. A vein instead of an artery as a compressing vessel and a minor degree of compression lessen the chances of cure as does a long duration of symptoms and prior surgical treatment2,8. Surgical complications can be reduced by minimizing retraction in the cerebello-ponine angle8 and thereby decreasing the morbidity of the patient.

CONCLUSION
Trigeminal neuralgia is the most common cause of facial pain. Diagnosis of this condition is very important. Initial therapy may include low dose of drug administration for pain relief. Surgery is indicated when medical management has failed. Microvascular decompression remains the most versatile technique when compared to others.
REFERENCES

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