

Maxillary nerve block – a useful supplementary technique in the management of trigeminal neuralgia- a case report

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Date of

Submission: 13-01-2019

Acceptance: 04-02-2019

ABSTRACT

A 62 year old male patient presented with complaints of left sided facial pain for 1 year. Patient was diagnosed to be a case of trigeminal neuralgia predominantly affecting the maxillary region after a thorough clinical examination by different specialties and investigations. Analgesics, antidepressants decreased pain but were unsatisfactory. Increased doses caused more sedation and decreased quality of life. An extra oral single shot maxillary nerve block was given and single drug therapy was continued. Satisfactory analgesia was noticed after a month. This case reports traditional extra oral maxillary nerve block as an adjuvant option for long term pain relief for trigeminal neuralgia.

Keywords:

Neuralgia, trigeminal, nerve block, maxillary

INTRODUCTION

Trigeminal neuralgia as defined by International Association for Study of Pain (IASP) is sudden, usually unilateral, severe brief stabbing recurrent pain in the distribution of one or more branches of the fifth cranial nerve. With an incidence of 0.03 to 0.3%, women are more affected than men (2:1). Most commonly affected divisions are the maxillary and mandibular ones.^{1,2} Treatment options include medical, surgical and nerve blocks.³ Among the nerve blocks mandibular nerve and gasserian ganglion block being the most commonly performed, but here we present a case of successful management of trigeminal neuralgia involving maxillary division treated with maxillary nerve block.

episodic pain over the left side of face for past 1 year. Pain was associated with eating, swallowing, clenching his teeth, washing face and aggravated with mild cutaneous or sensory stimuli. He had severe, intermittent, neuropathic pain with VAS of 9/10. He was on tablet topiramate 50 mg BD, tablet flupirtine 100 mg BD for past 2 months and then tablet amitriptyline 25 mg BD was added. Despite increasing the drugs, patient was not relieved of pain, instead complained of excessive sedation. Pain score was > 7/10 throughout the day. No other significant medical or surgical history was elicited.

On examination, patient was conscious, oriented, obeying commands, moderately built and nourished. Systemic examination was normal. Local examination revealed pain over infraorbital, zygomatic, nasolabial fold, upperlip and superior palate with major involvement of maxillary nerve territory. An ENT and dental opinion was obtained and not suggestive of any

CASE REPORT

A 62 year old male patient with no known comorbidities came to our hospital with chief complaints of

How to Cite: Janani N, Parthasarathy S. Maxillary nerve block – a useful supplementary technique in the management of trigeminal neuralgia- a case report. J Basic Clin Appl Health Sci. 2019;2:43-4.

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specific illness. The diagnosis of trigeminal neuralgia was made. MRI brain with a focus on the Meckel's cave and other routine investigations were normal.

As he was not compliant with medical management, we planned for left maxillary nerve block. With the patient in sitting position left sided traditional extraoral maxillary nerve block was given with 0.25% bupivacaine 7 ml with 8mg dexamethasone.⁴ This resulted in complete sensory block in maxillary nerve territory with a VAS of 1-2/10 with no complications. After 6 hours of the procedure, the sensory block resolved with persistent pain relief. Patient was discharged with only tablet topiramate 50 mg BD. On follow-up after one month, patient had VAS of 2-3/10 and was comfortable with day to day activities.

DISCUSSION

Trigeminal neuralgia, though uncommon, could cause debilitating neuropathic pain in a few patients. The primary goal in treating these patients is pain relief and hence nerve blocks may play a major role. Conventionally literature suggests gasserian ganglion block which needs expertise to administer.⁵ As this technique needs fluoroscopy guidance and high technical knowledge how, the traditional extraoral maxillary nerve block may serve as a simpler alternative. Okuda *et al* has given a CT guided maxillary nerve block for a 90 year old case with trigeminal neuralgia has shown a similar result.⁶ Complications of gasserian ganglion block like high spinal, diplopia, haemorrhage, meningitis can be avoided. There is no need to partially anaesthetize the patient before the procedure as in CT / fluoroscopy guided methods. According to retrospective study patients with trigeminal neuralgia usually presents at age 61-70. Most of the male patients have left facial pain

whereas female have right facial pain which typically represents this case.⁷ There has been no case report as such in literature of such extraoral classical maxillary nerve block as an analgesic option for trigeminal neuralgia. Limitations of this block are dysesthesia, haemorrhage which did not happen in our case. We report this case as a single shot maxillary nerve block with only local anesthetics without any neurolytics produced a significant long lasting analgesia along with decreased drug requirements.

CONCLUSION

Traditional extraoral maxillary nerve block can be a therapeutic alternative for recurrent trigeminal neuralgia, involving maxillary division to produce effective analgesia with decreased supplemental analgesics.

CONFLICTS OF INTEREST

None

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