Ophthalmic neuralgia

Postherpetic ophthalmic neuralgia is the final stage of a varicella zoster infection. Many years after chickenpox infection, patients can develop herpes zoster in one or more specific dermatomal regions. The ophthalmic branch of the trigeminal nerve and the thoracic nerves are most commonly affected. Younger patients are less prone to postherpetic neuralgia than the older. Patients with a depression in cell-mediated immunity are more susceptible to develop postherpetic pain. Postherpetic ophthalmic neuralgia is a neuropathic pain and can be treated by anticonvulsants and tricyclic antidepressants. Neurodestructive procedures are not recommended as they enhance destruction and neuropathic pain. Sympathetic nerve blocks can be helpful. Neurostimulation is the last therapeutic resort [1].

A patient suffering from ophthalmic division (V1) medically uncontrolled neuralgia with a preoperative visual analog scale (VAS) score of 9/10 was subjected to a percutaneous pain relief procedure. The patient was treated with prolonged duration pulsed radiofrequency (PRF) for 40 min, with corneal sensation monitoring under conscious sedation keeping a low voltage (7 V) and tip temperature at 37°C. The patient obtained immediate relief, which was verified on the operation table itself. Postoperative VAS score of 0/10 was recorded. More than 6 months after the procedure, the patient is completely free from neuralgic pain and continues to have a VAS score of 0/10.

As opposed to conventional PRF where mostly a tip temperature of 42°C and high voltage have been used for 2 to a maximum of 8 min, PRF with a tip temperature of 37°C and a safe voltage of 7 V over an ultra-extended duration of 40 min can give a more distinct and effective but equally safe result. Although our case verified the safety and efficacy of prolonged duration PRF in sensitive anatomic locations, more studies are warranted for establishing this as a standard line of treatment. The specific use of PRF in ophthalmic division neuralgia in the manner described in our case report has hitherto not been reported in medical literature and will open a new vista in the minimally invasive treatment of this disease [2].

1)
Devulder JE. Postherpetic ophthalmic neuralgia. Bull Soc Belge Ophtalmol. 2002;(285):19-23. Review. PubMed PMID: 12442339.
2)
Bhatjiwale MG, Bhatjiwale MM, Bhagat A. Ultra-extended euthermic pulsed radiofrequency for the treatment of ophthalmic neuralgia: A case report with elaboration of a new technique. Surg Neurol Int. 2016 Nov 14;7(Suppl 35):S818-S823. PubMed PMID: 27990312.