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TOPICAL ANAESTHESIA FOR DIODE TRANSSCLERAL MICROPULSE CYCLOPHOTOTHERAPY

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Purpose: To evaluate the use of topical anaesthesia in contact diode micropulse (MP3) cyclophototherapy.

Methods: Patients underwent diode laser micropulse cyclophototherapy (MP3) under topical anaesthesia. The following anaesthetic medications, lidocaine 4 % and bupivacaine 0.5% were instilled as eye drops every 15 minutes for 1 hour before the laser treatment. In addition, oral paracetamol 1 gram was given pre-laser. In situations, when pain was unbearable, a peribulbar block was performed using lidocaine 2% and bupivacaine 0.5%. Immediately after treatment, the patient was asked to rate the pain experienced based on the 0 -10 numerical pain scale wherein 0 meant no pain, 1 - 3 mild, 4 - 7 moderate and 8 and above, severe pain. Analgesic tablet was prescribed to be taken as needed. One day post laser, the patient was seen and was asked to report, the severity of pain within the 24 hours post treatment with or without analgesic medications taken.

Results: In this prospective case series, twenty-two patients had MP3 laser treatment set at 1.8 to 2.0 Watts with 31.3% duty cycle (0.5 msec ON; 1.1 msec OFF) under topical anaesthesia using 810 nm laser (Cyclo G6[®]) (Iridex, Mountain View, CA, USA). The average pain score using numerical rating scale (NRS) was 5.45 (moderate pain; range 5.30 to 5.60). All of the patients tolerated the entire treatment lasting for 100 seconds without additional peribulbar anaesthesia. There was mild conjunctival hyperemia but no chemosis. The post-operative pain in the immediate 24-hours after treatment was likewise unremarkable requiring no oral analgesic medications.

Conclusions: Most of the patients experienced moderate pain during MP3 treatment using topical anaesthesia.