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Introduction

Cervical radiculopathy (CR) is a disabling medical condition characterized by radicular discomfort in one or both upper limbs, as well as sensory, motor, and reflex abnormalities in one or more of the affected nerve root distributions. Cervical radicular pain affects around 83 people out of every 100,000. Retro pulsed disc material, zygapophyseal joint enlargement, and other soft-tissue anomalies can all induce nerve root compression

Previous research has been undertaken to assess the efficacy of PRF for the treatment of radicular pain, and we anticipated that combining PRF with intradiscal ozone therapy would be more effective in improving the outcome in patients with cervical radiculopathy.

Aim of the work

The aim of this study is to compare between pulsed DRG RF at the cervical root combined with intradiscal ozone injection and pulsed RF alone for treatment of patients with discogenic cervical radiculopathy.

Patients

After approval of local Ethics Committee and obtaining a written informed consent from each patient, the present study was carried out at Neurosurgery department, Alexandria University on 60 patients with cervical radiculopathy in a randomized controlled clinical trial.

Methods

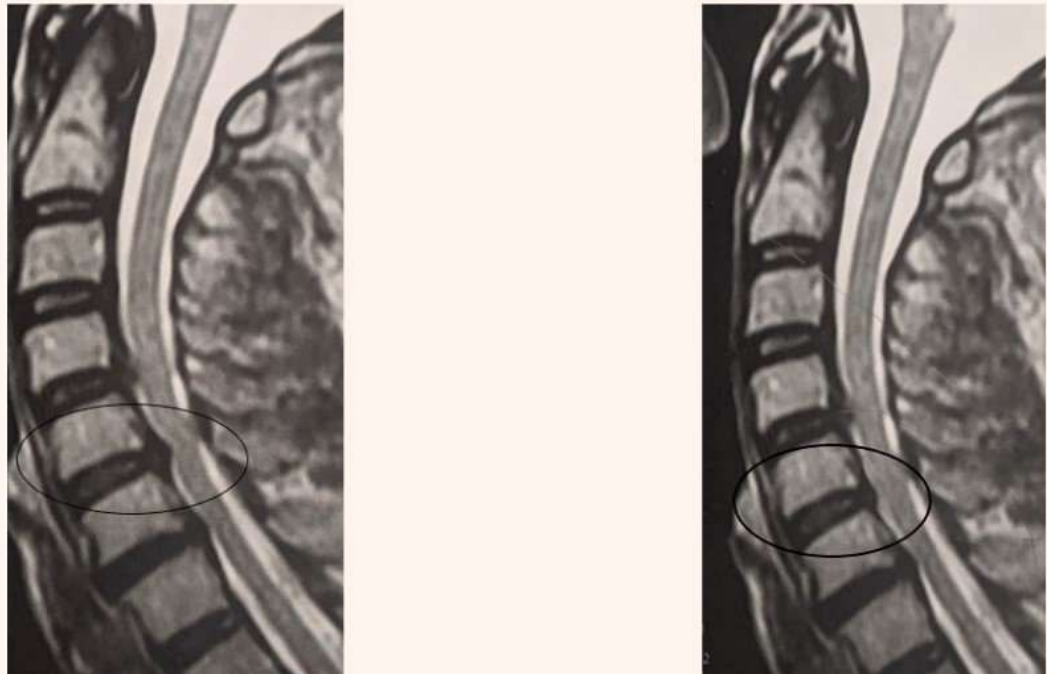
Patients were randomized by computer based program into three equal groups (20 patients each):

Group (I): patients had PRF combined with intradiscal ozone

Group (II): patients had PRF alone

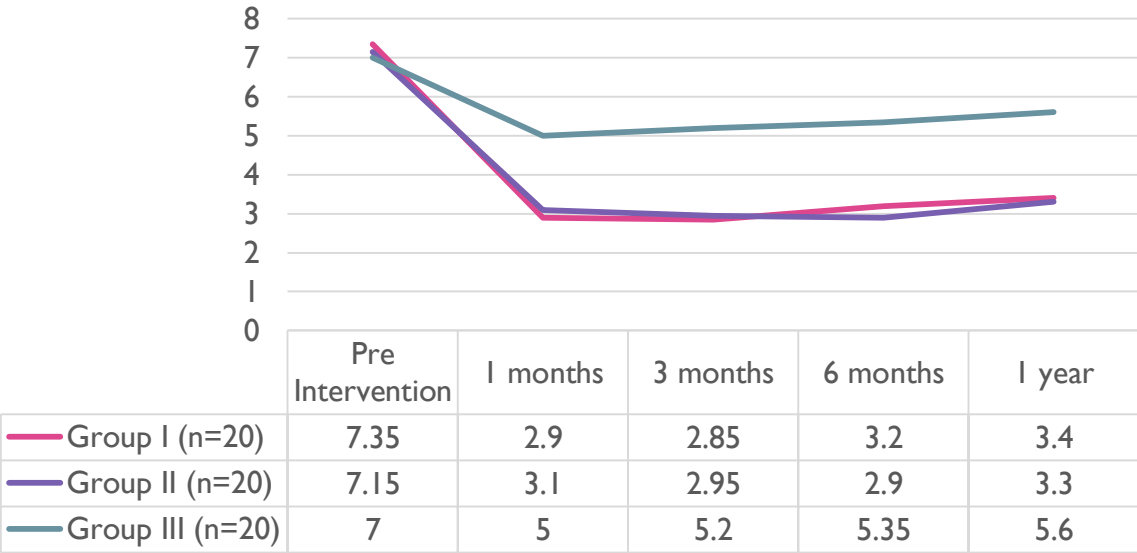
Group (III): control group which had diagnostic blocks

Results



Sagittal T2-weighted MRI of the cervical spine pre intervention (left) and post intradiscal ozone injection (right) showing decrease in disc size (C5-6 Disc).

Comparison between the three studied groups according to change in NRS (Numeric rating scale)



Group I: PRF combined with intradiscal ozone

Group II: PRF alone

Group III: Control

Conclusion

A selective nerve root block with local anesthetic aids in the identification of the nerve root and dermatome affected but provides little therapeutic benefit.

Pulsed RF combined with intradiscal ozone and pulsed RF alone had good clinical outcome when compared to control group in terms of reduction of pain, need of medications, neck disability index and need for surgery, however the difference between both active treatments failed to reach statistical significance.

Pulsed RF alone or combining pulsed Rf with intradiscal ozone provide good clinical and radiological outcome in patients with cervical disc herniation and can be tried before open discectomy for patients with cervical disc herniation.