CSRRSL 10th ASS 2016 OP 3 :

A tertiary care centre experience, on the outcome of interlaminar epidural corticosteroid injections in treatment of chronic lumbar radiculopathy

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Introduction

Although prevalence of chronic lumbar radiculopathy is unknown it leads to a significant morbidity and an economic impact. Epidural corticosteroid injections are an interventional therapeutic option available for the management of chronic lumbar radiculopathy. Interlaminar epidural corticosteroid injections are used at Rheumatology & Rehabilitation Hospital, as a therapeutic procedure in patients with persistent pain after 3 months of optimal NSAIDs and physical-therapy, in the absence of surgical indications, as per its chronic lumbar radiculopathy management protocol. This study scientifically assesses the effectiveness of the interlaminar epidural corticosteroid injections used in the above protocol.

Methodology

An interventional study, was carried out in 16 inward patients with unilateral lumbar radiculopathy, with a pain score of >5 in numerical rating scale following 3 months of optimal NSAIDs and physical therapy. Each patient was administered with 80mg methylprednisolone diluted up to 10 ml with physiological saline epidurally using a 22G lumbar puncture needle. Their pain scores and functional disability scores were analyzed using “Quadruple Visual Analogue Scale (QVAS)” and “Oswestry low back pain disability questionnaire” respectively, at 0, 4 & 12 weeks.

Results

The mean age of the study population was 60.56 (SD=11.9) years and 81.3% were females (n=13). Average symptom duration was 35.93 (SD =48.12) months. Initial mean pain score of 7 (SD=1.03), improved to 4.75 (SD=1.29), 5 (SD=2.28) respectively at 4th & 12th weeks and the findings were statistically significant when paired sample t-test was applied ($p<0.001$ and $p<0.01$ respectively).

Mean functional disability assessment score was 63.70 (SD=11.34) which was reduced to 45.33 (SD=8.54) by 4^{th} week and to 46.66 (SD=11.80) at 12^{th} week and both were statistically significant where $p<0.001$.
Two patients (12.5%) demonstrated significant post dural puncture headache and one patient (6.25%) patient had worsening of glycaemic control.

Conclusion

Blind interlaminar epidural corticosteroid injections are a relatively safe procedure at expert hands and demonstrated statistically significant improvement in pain scores and functional scores in short to intermediate term. However their long term efficacy needs to be studied further.