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Superiority Analysis of Endoscopic Discectomy Compared to Microdiscectomy

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experience back pain at least once in their lifetime. Transforaminal epidural steroid injection using fluoroscopy has been becoming a very effective therapy because of its anatomic accuracy and is now becoming a standard technique. **Material and Methods:** Patients fulfilling the inclusion and exclusion criteria were recruited in the study after taking informed valid consent and due ethical clearance from the institute. 2% lignocaine 1 ml + triamcinolone acetate 10 mg is administered through Kambins triangle approach under fluoroscopy guidance. The efficacy of transforaminal steroid injection is done on the basis of questionnaire considering the Numeric rating score (NRS). The patients' were followed up for 6 weeks. **Results:** A total of 45 patients were recruited in the study. The average age of presentation was 44.88 years with standard deviation of 8.24 years. Of the total patients 42.22% were male and 57.78% were female. 71.11% had left radiculopathy and 28.89% presented with right sided complaints. Patient with L3-L4 disc made 2.23% of the study sample. 64.44% patient had L4-L5 disc prolapse and 33.33% patient had L5-S1 disc prolapse. 75.56% patients presented as low back pain with radiculopathy. 24.44% patients had only radiculopathy. Patients with Pffirmann MRI grade III changes were only 33.33% of sample size and 66.67% patients had grade IV changes. The mean NRS score pre-procedure was found 7.27 with standard deviation .809. The mean NRS score post-procedure was 5.2 with standard deviation 1.61. The *P* value on comparing the two NRS score was found to be < .0001. The success rate- that is patient having pain relief post procedure was 75.6%. **Conclusion:** Our study has come to assess that a single dose of transforaminal epidural steroid injection in selected group of patients can significantly improve the pain relief within a short term period and thus further improve patient care and management. The fluoroscopic guidance helps in precise anatomic location and local delivery of steroid drug- thus increasing local drug concentration and help diminish their systemic side effects. Patient factors that did not have influence on the outcome were age of patient, gender, side of radiculopathy and level of disc involved. The complaints of low back pain with radiculopathy and higher Pffirmann MRI grade had a negative impact on the outcomes. An extended application for this study could be to differentiate the exact level of nerve root involvement in case of multilevel disc herniation on MRI and clinical examination.

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P258: Superiority Analysis of Endoscopic Discectomy Compared to Microdiscectomy

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Introduction: With the gaining popularity of the endoscopic approach in the management of lumbar disc disease, endoscopic discectomy (ED) has also become one of the common methods of surgical management.⁶ Although ED had limited indications in the earlier days, with the advancement in the technology and tools used, the domains of its use have been extended. Moreover, with its advantages like surgery under local anaesthesia, less damage to the bone and paraspinal musculature and fast postoperative recovery ED is taking over the place of MD in the management of lumbar disc disease. We performed this meta-analysis to evaluate whether Endoscopic Discectomy (ED) shows superiority compared to the current gold standard Microdiscectomy (MD) in management of lumbar disc disease. **Materials and Methods:** We conducted independent and duplicate electronic database search including PubMed, Embase and Cochrane Library from 1990 till April 2020 for studies comparing ED and MD in the management of lumbar disc disease. Analysis was performed in R platform using OpenMeta[Analyst] software. **Results:** We included 27 studies including 11 RCTs, 7 non-randomized prospective and 9 retrospective studies involving 4018 patients in meta-analysis. We stratified the results based on the study design. Considering the heterogeneity in some results between study designs, we weighed our conclusion essentially based on results of RCTs. On analysing RCTs, superiority was established at 95% confidence interval for ED compared to MD in terms of functional outcomes like ODI score (*P* = .008), duration of surgery (*P* = .023), length of hospital stay (*P* < .001) although significant heterogeneity was noted. Similarly, non-inferiority to MD was established by ED in other outcomes like VAS score for back pain (*P* = .860) and leg pain (*P* = .495), MacNab classification (*P* = .097), recurrences (*P* = .993) and reoperations (*P* = .740) and return to work period (*P* = .748). **Conclusion:** Our meta-analysis established the superiority of endoscopic discectomy in outcome measures like ODI score, duration of surgery, overall complications, length of hospital stay and non-inferiority in other measures analysed. With recent advances in the field of ED, the procedure has the potential to take over the place of MD as the gold standard of care in management of lumbar disc disease.

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P259: Can Small Leucine Rich Proteoglycans be Ideal Molecular Targets for Regeneration in IVD? - Evidence From Proteomic Signatures of fetal, Adult and Degenerative Discs

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