البحث الثامن

Posterior lumbar interbody fusion using laminar graft versus posterolateral fusion in degenerative lumbar disc diseases

Ayman Abdelbaset Abdelsamad
Mohammed Ahmed Moussa
Waleed Said Abdalkhalik

Background: Degenerative lumbar spondylolisthesis is a serious clinical entity that causes varying degrees of Low back pain, sciatica, paraesthesia, weakness, and intermittent claudication. They affect humans in the most productive age group and hence have a major socioeconomic load although Spinal arthrodesis (fusion) is the main surgical option for the management of debilitating degenerative disorders of the lumbar spine The difference in fusion rates in lumbar spine surgery can be dependent upon the technique. The goal of the present study was to compare the outcomes of posterior lumbar interbody fusion(PLIF) using autogenous strut graft versus instrumented posterolateral fusion (PLF)in degenerative lumbar spine diseases.

Patients and Methods: The study was approved by the local ethics committee, and written consent was obtained for each subject. From January 2017 to June 2020, The study included 40 patients divided into 2 groups (A and B), group A included 20 patients and it was treated by posterior lumbar interbody fusion (PLIF) by autogenous strut graft while group B included 20 patients and it was treated by Posterolateral fusion (PLF). Patients were followed for one year.

Results: Mean operative (OR) time was 122min. in group (A) and 95 min. in a group (B). Functional outcome was assessed using Modified Oswestry Lower Back Pain (LBP) disability questionnaire [ODI Score] system and visual analog scale(VAS). There was a statistically significant difference between preoperative and one-year postoperative ODI (Oswestry Disability Index) scores in the PLIF group and PLF group (P-value<0.001), but the difference between preoperative and one-year postoperative ODI scores in the PLIF group was more than that of PLF group. Fusion occurred in 90% of the group (A) and 80% of the group (B). There was no statistically significant difference between both groups regarding postoperative complications and the process of disc fusion**.**

Conclusion: Although there was no important statistically significant difference between posterior lumbar interbody fusion (PLIF) and Posterolateral Fusion (PLF), however, PLIF is superior to PLF in regards to clinical and radiological outcomes. So, our study suggests PLIF over PLF in the treatment of degenerative lumbar spine diseases.