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# Clinical Outcome of Facet Joints Injection in Patients With Lumbar Facet Joints Arthropathy

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## Abstract

**Introduction:** Facet joint injection (FJI) combined with steroids is known to be effective for lumbar facet joint arthropathy (FJA). This study evaluates its impact using the Oswestry Disability Index (ODI) and Visual Analogue Scale (VAS) to measure function and pain, respectively, before and six months after treatment. Additionally, the study examined the relationship between body mass index (BMI), vitamin D levels, and functional outcomes as indicated by ODI scores. **Materials and methods:** Thirty-six patients underwent lumbar FJI at the L3/L4, L4/L5, and L5/S1 levels. Changes in ODI and VAS scores were analysed using paired T-tests. To examine the mean differences in ODI scores before and six months after treatment, a One-way ANOVA was conducted, with post-hoc analysis using the Dunnett T3 test for significant results. A p-value < 0.05 was considered statistically significant. **Results:** Significant improvements in functionality and pain were observed, as indicated by ODI and

VAS scores. Notably, patients with a normal BMI showed marked functional improvement. The One-way ANOVA revealed a positive correlation between vitamin D levels and ODI scores, with the post-hoc analysis indicating that patients with optimal vitamin D status had the best outcomes. Conclusion: Patients with lumbar FJA who have a normal BMI and optimal vitamin D levels demonstrated significantly improved clinical outcomes at six months. © 2025 Universiti Putra Malaysia Press. All rights reserved.

## Author keywords

Body mass index; Facet joints arthropathy; Facet joints injection; Oswestry disability index; Vitamin D

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