Endoscopic facet joint denervation

- Lumbar Facet Joint Disease: What, Why, and When?
- Clinical Outcome after Endoscopic Facet Denervation in Patients with Chronic Low Back Pain
- Percutaneous radiofrequency ablation and endoscopic neurotomy for lumbar facet joint syndrome: are they good enough?
- Facet Joint Syndrome: Pathophysiology, Diagnosis, and Treatment
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- Comparative efficacy of radiofrequency denervation in chronic low back pain: A systematic review and network meta-analysis
- Comparison of Endoscopic Facet Joint Denervation to the Percutaneous Technique Regarding Efficacy in Patients With Low Back Pain: A Randomized Controlled Trial

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Percutaneous radiofrequency facet joint denervation (PRFD) is the gold standard of today's rhizotomy for chronic low back pain (CLBP). However, previously published studies present controversial results for the efficacy of PRFD. Therefore, this study aimed to analyse the use of endoscopic facet joint denervation (EFJD) to treat chronic low back pain and to identify potential risk factors that could limit indications for surgery.We retrospectively included 31 eligible patients into the study with at least 24 months of CLBP. All patients underwent EFJD and had to complete ODI, COMI, EQ-5D and VRS scores postoperatively, with a minimum follow up of 12 months. Basic patient data was recorded to analyse correlations.We found a significant improvement in all clinical scores measured, such as ODI, COMI, EQ-5D and VRS scores. While the best result was found at the 3 months follow-up, a slight deterioration was found at 12 months follow-up. However, significant benefit was observed when compared to preoperative scores. 28/31 patients (93.3%) reported reduced pain at 12 months follow-up and were satisfied with the procedure. Older age and psychiatric precondition were identified as potential risk factors associated with poorer outcome. Postoperative complications such as haematoma, a sensibility disorder and temporary low extremity muscular weakness were rarely observed.EFJD showed significant improvement of the clinical outcome scores and VRS when compared to preoperative results of patients, with a minimum of 12 months of CLBP prior to surgery. Older patients and patients with a psychiatric precondition seem to benefit less from the procedure [1)].

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28 patients with low back pain, with a duration, > 6 months and a 50% pain reduction on the numeric analog scale (NAS) after a diagnostic block. All patients received endoscopic facet joint denervation of three facets on the left and right side using only one incision on each side with an exploration of the surrounding tissue. Telephone interviews were conducted with all patients. The outcome was determined with Odom's criteria, percentage reduction NAS, subjective assessment of the patient, and duration of the effect.

According to Odom's criteria, 68% of the patients showed “acceptable” to “excellent” results and confirmed that denervation helped them manage their daily lives better. The average pain reduction in the responder group was 47% with an average duration of 7.8 months.

In this retrospective study, Woiciechowsky and Richter from the Vivantes-Humboldt-Klinikum, Spine Clinic, Spine Center Berlin, Charité Medical Faculty Berlin, demonstrated the practicability and

effectiveness of the endoscopic facet joint denervation procedure in the treatment of chronic low back pain using only one incision for three facets. Further studies should investigate if this procedure is more effective than percutaneous radiofrequency denervation [2].

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Lenz M, Egenolf P, Menzhausen J, Heck V, Perera A, Eysel P, Scheyerer M, Oikonomidis S. Clinical Outcome after Endoscopic Facet Denervation in Patients with Chronic Low Back Pain. Z Orthop Unfall. 2024 Aug 26. English, German. doi: 10.1055/a-2348-1186. Epub ahead of print. PMID: 39187240.
2)
Woiciechowsky C, Richter LM. Endoscopic 4-MHz Radiofrequency Treatment of Facet Joint Syndrome Is More Than Just Denervation: One Incision for Three Facets. J Neurol Surg A Cent Eur Neurosurg. 2020 Jan 14. doi: 10.1055/s-0039-1698397. [Epub ahead of print] PubMed PMID: 31935787.