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## Percutaneous treatment of degenerative disc disease with radiopaque gelified ethanol (Discogel); Initial experience in Iran

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**Introduction:** Minimally-invasive treatments of degenerative disc disease are becoming more popular. Various intradiscal procedures have been introduced since many years ago, with variable and inconsistent outcome. Chemical neucleolysis has been performed using multiple chemical substances including Chymopapain and alcohol with limited success. Discogel, a new similar substance composed of ethanol mixed with ethylcellulose and radiopaque material, has been recently introduced with promising results. In this study, we try to present our initial experience with intradiscal injection of Discogel in Iranian patients, to evaluate its efficacy and safety.

**Methods:** From August until December, we have started our experience with Discogel in five centers in Tehran, Iran. Seventyfour patients with symptomatic lumbar or cervical disc herniation, who failed conservative non-surgical treatment, were included into the study. Protruded and extruded herniated disc without sequestration, with disc height more than 50% of the initial height, Pfirrman grading of III or IV, with radicular symptoms more prominent than axial symptoms. 0.5 to 0.6 milliliters of Discogel in cervical discs and 0.8 to 1.6 milliliters in lumbar discs was injected under controlled fluoroscopic/ CT scan guidance using standardized techniques.

**Results:** Seventy-four patients were injected, aged 20-78 (mean= $44.4\pm9.7$ ). There were 52 lumbar and 22 cervical operations. This was the first intervention for all patients except for 3 of them that had a history of previous operation at other levels. The procedure lasted from 15 to 90 minutes depending on the number of levels, and the whole admission took from 3 to 24 hours. Median VAS score was 10 before injection, which dropped to 5 at 1 week post-injection, and 0 at 1 month post-injection. Only 3 patient reported significant remaining pain at 1 month of follow-up that underwent operation. No complications were noted.

**Conclusion:** Initial results were promising, indicating more than 95% of good and very good results. This preliminary study shows efficacy and safety of Discogel intradiscal injection in selected cases. Further long-term follow-up is needed to evaluate the results.

## Biography

Firoozeh Foroozand has completed her MD from Shiraz University of medical sciences in 2009. She has been interested in providing treatment or research options in the field of Neuro-Spine surgery, mostly Minimally invasive techniques of herniated discs treatments.

She has been responsible for introducing the Minimally invasive intradiscal injection of Radiopaque Gelified Ethanol (Discogel) for herniated discs treatment for the first time ever in Iran.

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