Intervertebral disc annuloplasty

The term intervertebral disc annuloplasty indicates any procedure aimed at repairing the annulus of a bulging intervertebral disc before it herniates.

A single-center study included 80 patients and followed them for 6 months. Transforaminal laser annuloplasty (TFLA, 37 patients) or intradiscal radiofrequency annuloplasty (IDRA, 43 patients) was performed. The main outcomes included pain scales, determined by the numeric rating scale (NRS), and Oswestry disability index (ODI), at pre-treatment and at post-treatment months 1 and 6.

The patients were grouped according to procedure. In all procedures, NRS and ODI scores were significantly decreased over time. Mean post-treatment pain scores at months 1 and 6 were significantly lower ($P < 0.01$) in both groups, and between-group differences were not significant. The ODI score was also significantly decreased compared with baseline. Among patients undergoing TFLA, 70.3% (n = 26) reported pain relief (NRS scores < 50% of baseline) at post-treatment 6 months, vs. 58.1% (n = 25) of those undergoing IDRA. There were no statistically significant differences between the groups in ODI reduction of > 40%.

The results indicate that annuloplasty is a reasonable treatment option for carefully selected patients with lower back and radicular pain of discogenic origin, and TFLA might be superior to IDRA in patients with discogenic low back pain [1)].

1)
Park CH, Lee KK, Lee SH. Efficacy of transforaminal laser annuloplasty versus intradiscal radiofrequency annuloplasty for discogenic low back pain. Korean J Pain. 2019 Apr 1;32(2):113-119. doi: 10.3344/kjp.2019.32.2.113. PubMed PMID: 31091510.