

Lumbar Disc Features Predictive of Favorable Response to Transforaminal Epidural Steroid Injection (TFESI): A Comprehensive Systematic Review

Kervyn, M.D, Peddireddy, M.D., Howard, D.O., Behnum, M.D.



Background

- Lumbar disc herniation prevalence ~5.5%
- TFESI used after conservative care fails
- Uncertainty about prognostic role of herniation location

Methods

- Systematic review of 13 studies (PubMed & Embase)
- Inclusion: TFESI monotherapy for disc herniation
- Exclusion: non-human/case reports/other injections

Results

- 3 studies: lateral → better outcomes
- 6 studies: no difference
- 2 studies: central/paracentral better
- Mild compression & positive Slump test = favorable
- Severe compression → worse outcomes
- Technical proficiency critical (needle placement, contrast flow)

Limitations

- Heterogeneous study designs/outcomes
- Lack of control groups or long-term follow-up
- Mostly particulate steroids used

Conclusion

- Disc location matters but not sole predictor
- Mild compression & positive Slump test strongest predictors
- Technical skill essential
- More standardized research needed

