# NYU Langone Health RUSK REHABILITATION

Transforaminal Epidural Platelet-Rich Plasma (PRP) & Transforaminal Epidural Steroid Injection (TFESI) in Treatment of Refractory Discogenic Low Back Pain; A Case Report Brendan Skeehan DO, Haruki Ishii MD, Michael Pico MD, Milan Ristic DO, Christopher Kyrakides MD, William Tsai MD, Chirag Shah MD

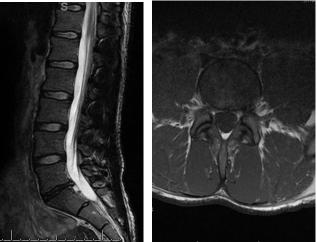
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### Case Description

MRI

Setting: Tertiary Care Academic Hospital Patient: 26-year-old male

- 26-year-old male presented with a 3-week history of acute low back pain experienced while working out.
  Patient reported severe left lower back pain without radiation exacerbated by flexion and without associated weakness/numbness.
- Patient's physical exam was unremarkable. MRI revealed left L5-S1 paracentral disc herniation and annular tear with effected L S1 nerve root.
- Patient was treated conservatively with therapy. At 1-month follow-up after four sessions patient received left L5-S1 TFESI and L2-L3 interspinous ligaments trigger-point injections in setting of non-improved pain. At follow-up 7 months later after three additional therapy sessions - pain was mildly improved and 3 months later patient received bilateral L5-S1 TFESI in setting of non-resolved pain. At subsequent 4-month follow-up pain was still present and patient received bilateral L5-S1 TFE and interspinous ligament L2-L3 PRP injections. At final 3-month follow-up patient reported resolution of pain with painless functional range-of-motion and return to baseline activity/exercises within 1 week of PRP injections.



MRI revealed left L5-S1 paracentral disc herniation and annular tear with effected L S1 nerve root.

#### Discussion

- Low back pain is a leading cause of disability and medical expenditure worldwide and intervertebral disc (IVD) injury is a common etiology.
- Platelet-rich plasma (PRP) therapy has known potential for soft-tissue regeneration/repair and treatment of certain degenerative musculoskeletal conditions, specifically knee OA.
- Recently there has been promising research regarding PRP in treatment of IVD degeneration but research regarding pain and function in acute injuries unfortunately remains limited.
- Further clinical trials are warranted to evaluate effectiveness of PRP in addressing pain and function in acute disc injuries and the variables – specifically age, extent of injury, concurrent use of contrast, and presence of degenerative conditions – that may influence it.

#### Conclusion

- PRP is an effective treatment for pain in degenerative musculoskeletal conditions such as knee OA and IVD degeneration
- Further studies are necessary to evaluate its potential in addressing pain and function in acute discogenic injuries and other acute non-degenerative musculoskeletal conditions.

## References

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