KSSS 2025

The 42nd International Congress of Korean Society of Spine Surgery May 21 (Wed) – 23 (Fri), 2025 Lotte Hotel Seoul (Sogong-dong), Korea

Epidural PRP Injection : An Alternative Treatment Of **Spinal Pain**

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Common Spinal Disorders

01. Low Back Pain

02.

Lumbar Root Pain (Sciatica)

03.

Cervical nerve root pain.





04.

Lumbar stenosis.

05.

Spinal degenerative change

(Common spinal conditions -**Torbay and South Devon** NHS Foundation Trust, 2024)

Current Treatment Landscape:

Conservative Treatments:

Pain medications (NSAIDs, muscle relaxants). Physiotherapy.

Invasive Treatments:

Epidural steroid injections. Surgery (discectomy, spinal fusion).

- What is PRP?:
- Autologous plasma.
- Platelet concentration
- is **3–5 times higher** than the baseline platelets.
- Obtained by centrifugation of peripheral blood.

(Tambeli, 2023)



- How Does PRP Work?:
 PRP works by:
- Modulating inflammation.
- Improving pain and tissue regeneration.
- Enhancing tissue healing.
- Improving pain and functionality.
- Reducing the progression of degenerative diseases.

(Tambeli, 2023)



PRP initiates self-repair processes of the body. Modulates inflammation Reduces pain.

(Demirci, 2022)



Advantages of PRP Over Traditional Treatments:

Collection and Preparation of PRP

- 40 ml blood is drawn from the patient.
- Centrifugation is done to concentrate platelets.
- About 20 ml PRP is collected for injection.

Discussion

Injection Procedure

- With all aseptic precaution injection is administered into the epidural space at the level of the affected disc.
- Total of 3 injections given at 1-month intervals.
- Sometimes a booster dose is given after 1 year of the 3rd dose.





Clinical Outcomes

 Improvements in physical activity and daily function. Reduction in post-treatment use of medication.

 Comparison of pre-and post-treatment VAS scores : VAS score reduced after treatment.

 Post treatment MRI showed reduction in herniated disc size in certain patients.



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Before treatment

After treatment



After treatment



Comparison with Other Treatments

PRP vs. Steroids:

- Long-term benefits of PRP over temporary relief from steroids.
- PRP's regenerative effects vs. steroids' anti-inflammatory action.

PRP vs. Surgery:

- PRP.



 Avoidance of surgical risks (e.g., infection, longer recovery). Faster return to normal activities with

Patient Satisfaction:

High satisfaction rates among patients.

Clinical Implications

- Being an autologous product, PRP exerts no adverse effects like steroid.
- Epidural PRP has the potential to reduce the need for surgery.
- New hope for patients with chronic spinal pain unresponsive to traditional treatments.





Conclusion

• Epidural PRP is a safe, effective alternative for spinal pain management. Significant pain relief and functional improvement were observed. PRP's regenerative property makes it a great option for long-term healing.

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THANK YOU