

Wound local anaesthetic infiltration for post operative pain control in posterior spinal decompression

Mr B Balbisi¹, Mr J Langdon², Dr M Dudley³

¹Orthopaedic Registrar. ²Consultant Spinal Surgeon. ³Consultant Anaesthetist
Departments of Orthopaedics and Anaesthesia, West Hertfordshire Hospitals NHS Trust, UK

Background

We undertook a retrospective observational study evaluating the effect of bupivacaine and lidocaine wound infiltration on post-operative pain scores, morphine consumption and hospital stay in spinal decompression.

Method

A new technique providing post-operative analgesia was implemented for posterior spinal decompression involving the infiltration of 40 ml 0.25% bupivacaine into paravertebral muscles and 10 ml 2% lidocaine into the subcutaneous tissue on wound closure. We reviewed the means of hospital stay, pain scores, morphine consumption at recovery, 24 hrs and 48 hrs post surgery of 44 patients (22 patients before and 22 patients after the start of this technique).

Pain score used was a verbal descriptive score at movement:

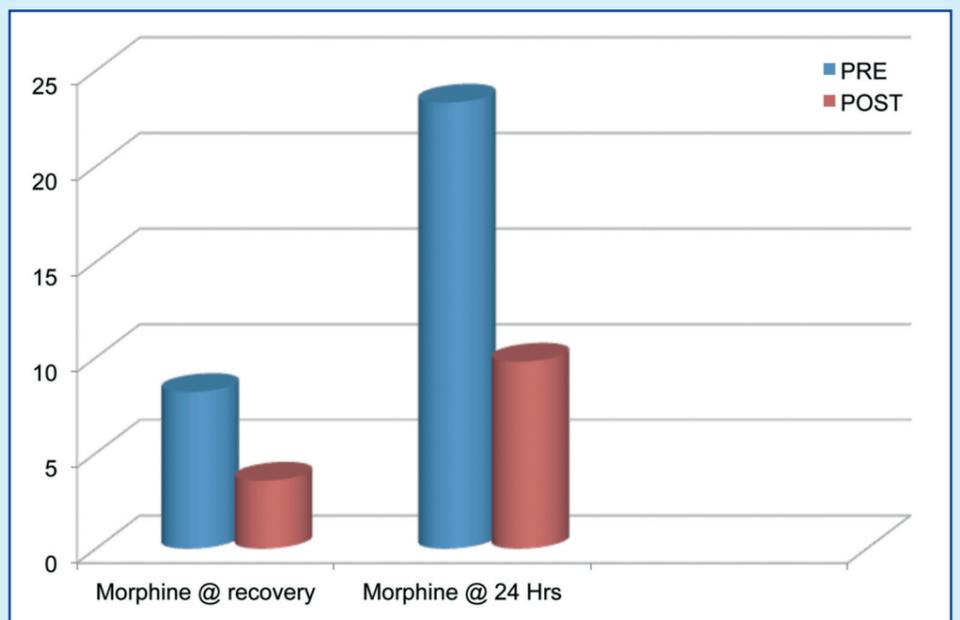
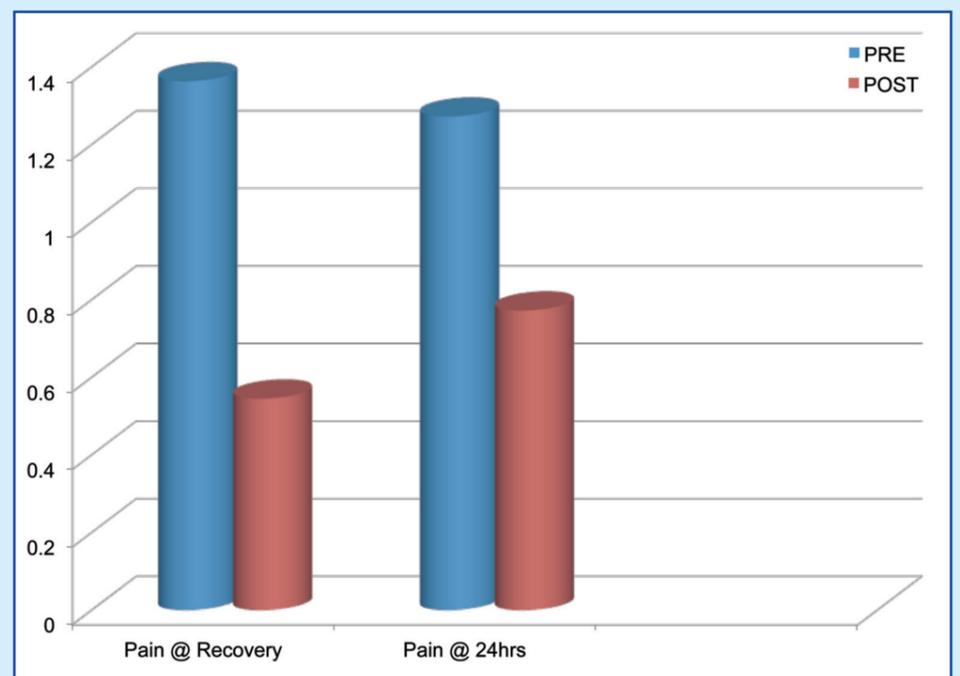
- 0 → no pain
- 1 → mild
- 2 → moderate
- 3 → severe pain

Inclusion criteria for this study:

- 1) All patients had primary single level spinal decompression without fusion.
- 2) All operation was performed by one single surgeon. Continuous variables were analysed using T-test. The Null hypothesis was rejected if P-value was < 0.05.

Results

	Pre wound infiltration technique	Post wound infiltration technique	P-value
Pain score at recovery	1.363	0.545	0.017
Pain score at 24 hrs	1.272	0.772	0.049
Hospital stay	2.136	1.500	0.041
Morphine at recovery (in mgs)	8.181	3.545	0.001
Morphine at 24 hrs	23.318	9.772	0.041



Discussion

With this new technique within our practice we were able to demonstrate a significant difference in the mean of hospital stay, post operative pain and morphine consumption at recovery and 24 hrs ⁽¹⁾.

A larger prospective multi-surgeon and multi-site study is needed to confirm these findings.

References

1. Cherian MN, Mathews MP et al. Local wound infiltration with bupivacaine in lumbar laminectomy. Surg Neurol. 1997 Feb;47(2): 120-2; discussion 122-3.