

AB199. SOH21AS175. Investigating the use of dorsal ramus nerve root blocks as a solution to post-operative pain and morphine requirements in lumbar spine surgery

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Background: Post-operative pain control remains an important aspect of the management of patients following open lumbar spine surgery. Most pain protocols promote a multimodal approach, aiming to reduce opiate requirements. This is a novel, case-matched, prospective study that aims to establish the efficacy of dorsal ramus nerve root (DRN) blocks for post-operative analgesia.

Methods: We conducted a case-control observational, single centre, prospective study of 15 consecutive patients who received a DRN block for a single-level lumbar discectomy or one/two-level lumbar spinal decompression, from January 2018 to June 2018. These were case matched with a local anaesthetic field infiltration group. We analysed the mean and maximum rest pain scores, opiate requirement, mobilisation status and length of stay (LOS).

Results: No differences were seen in pain scores in the first 24 hours post-operation for DRN block *vs.* field infiltration groups (2.8 *vs.* 2.7, $P=0.90$). No reduction in the morphine sulphate equivalent analgesia requirement was seen in the DRN group (43.1±46.4 *vs.* 37.6±33.5, $P=0.26$). Similar proportions of patients mobilised early (11/15 *vs.* 10/15,

$P=1.0$) and the mean LOS was 1.7 *vs.* 1.8 days ($P=0.81$).

Conclusions: In this novel study, dorsal ramus nerve block is not superior to local anaesthetic field infiltration of the surgical wound in minor one or two level lumbar spinal decompression surgery in terms of reducing pain, decreasing opiate requirements, or facilitating earlier mobilisation and discharge.

Keywords: Dorsal ramus nerve root; lumbar surgery; morphine equivalent analgesia; pain management; spinal surgery

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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