

Right click in the review text, and select 'Insert Analysis Results' from the drop down list to ensure your meta-analyses are stated correctly.

Review Manager 5.3

File Edit Format View Tools Table Window Help

Normal B I U X² X₂ [List of icons]

[Peripheral nerve blocks for postoperative pain after major knee surgery [v1.188-20141006 revised].rm5] Peripheral nerve blocks for postoperative pain after major knee surgery

Intervention review

- Title
- Review information
- Main text
- Tables
- Studies and references
- Data and analyses
- Figures
- Sources of support
- Feedback
- Appendices

Text of Review

Pain intensity (Analyses 1.1 to 1.6)

Pain intensity was assessed on a VAS by patients themselves or blinded assessors. Different authors reported this outcome on different ranges of scale. All of them were normalized to a 100 mm VAS so as to be analyzed in the review. Where the pain score was given but it was not described whether the score was measured at rest or on movement, we considered it as at rest. When the pain score was presented as the median and interquartile, we estimated the mean as equivalent to the median and the standard deviation as a quarter of the interquartile. When the pain score was presented as 95% CI, the standard deviation was calculated from the formula $SD = \sqrt{N \times (\text{upper limit} - \text{lower limit})/3.92}$ (Higgins 2011).

Data were generally reported as the average pain intensity of a time period. However, studies in which the only data available was measured at a single time point within the interval of interest, we used this measurement to represent the average pain intensity of that time period. Where measurements were reported at several time points within the interval of interest, we selected the one that measured at the time point closest to the middle point of that interval. To clarify, outcome measured at the time point closest to the 12th hour represented the zero to 23 hours interval, time point closest to the 36th hour represented the 24 to 47 hours interval, and time point closest to the 60th hour represented the 48 to 72 hours interval.

Seven studies examined pain scores at rest in the [redacted] which involved 390 participants with 196 in the peripheral nerve blocks adjunctive to systemic analgesia group and 194 in the systemic analgesia alone group, respectively. The former group had 11.85 points lower VAS than the latter one (95%CI -20.45 to -3.25, random-effects model) (Analysis 1.1). Pain intensity at rest in the 24 to 47 hours interval [redacted] six studies (320 participants, 162 with peripheral nerve blocks adjunctive to systemic analgesia and 158 with systemic analgesia alone, respectively), and showed a mean difference of -12.92 points (95%CI -19.82 to -6.02, random-effects model) (Analysis 1.2). The peripheral nerve blocks adjunctive to systemic analgesia group was reported to 9.72 points lower than that of the systemic analgesia alone group (95% CI -16.75 to 7.31, random-effects model) (Analysis 1.3). Five studies reported pain scores on movement in the zero to 23 hours interval (304 patients, 150 with peripheral nerve blocks adjunctive to systemic analgesia and 154 with systemic analgesia alone, respectively) and there appeared to be no significant difference between these two groups (Analysis 1.4). Only three studies reported results of VAS in the 48 to 72 hours interval. For the former comparison [24-47 hours], there was no significant difference in the VAS for patients undergoing anterior cruciate ligament reconstruction at rest and on movement in the zero to 23 hours interval postoperatively. However, there was no significant difference in the VAS for patients undergoing anterior cruciate ligament reconstruction at rest and on movement in the zero to 23 hours interval postoperatively. There were insufficient data to conduct subanalysis in the 24 to 47 hours and 48 to 72 hours intervals postoperatively for anterior cruciate ligament reconstruction.

Secondary outcomes:

Proportion of patients with 'no worse than mild pain'

Two studies (Lundblad 2011; Williams 2006) reported proportion of patients with 'no worse than mild pain'. Lundblad 2011 observed that in the 0-23 hours interval postoperatively, the percentage of patients with 'no worse than mild pain' was significantly higher in the block adjunctive to systemic analgesia group as compared to the systemic analgesia alone group at rest but not on movement. Williams 2006 recorded that in the 24-47 hours interval postoperatively, the proportion of 'no worse than mild pain' in the systemic analgesia alone group, single peripheral nerve block adjunctive to systemic analgesia group, and continuous peripheral nerve block adjunctive to systemic analgesia group was 36.8%, 52.6%, and 73.7% respectively. In the 48 to 72 hours interval postoperatively, the proportions were 39.5%, 46.8%, and 68% respectively.

Additional analgesic consumption within 72 hours after surgery and median time to remediation

18 included studies recorded additional analgesic consumption within 72 hours postoperatively. The type of analgesic was variable, as were the time intervals in which the outcome was measured, therefore, it was hard to conduct a meta-analysis. Among them, four studies (Espelund 2013; Hirst 1996; Ilfeld 2010; Matava 2009) reported additional analgesic use did not differ between two

Guidance

MECIR Reporting

Presenting data

R76, Highly desirable

Ensure that simple summary data for each intervention group, as well as estimates of effect size (comparing the intervention groups), are available for each study for each outcome of interest to the review. These appear by default when dichotomous or continuous outcome data are analysed within RevMan.

Details

Number of studies and participants

R77, Mandatory

State how many studies and how many participants contributed data to results for each outcome, along with the proportion of the included studies and recruited participants potentially available for the relevant comparison.

Details

Source of data

R78, Highly desirable

State the source of all data presented in the review, in particular, whether it was obtained from published literature, by correspondence, from a trials register, from a web-based data repository, etc.

Details

Multiple outcome data

R79, Mandatory

Describe any post hoc decisions that might give rise to accusations of selective outcome reporting, for example when there are multiple outcome measures (e.g. different scales), multiple time points or multiple ways of presenting results.

Details

Ordering of results and 'Data and analysis' section

R80, Highly desirable

Organize results to follow the order of comparisons and outcomes specified in the protocol, following in

Status: Checked out, Version: Latest version

12:51 09/10/2014