Reviewer's report

Title: Femoral nerve block-sciatic nerve block vs. femoral nerve block-local infiltration analgesia for total knee arthroplasty: a randomized controlled trial

Version: 2
Date: 20 February 2015
Reviewer: Devendra Mahadevan

Reviewer's report:

Overall assessment:
The study does ask a reasonable question that may have clinical implications. It has been set out the right way. However, I think there is a serious flaw in the sample size estimation. The calculations suggested a group size of 28 (14 per group). I have tried to calculate it myself and with the same parameters used (effect size 0.25 (for NRS I assumed), beta error 0.2, alpha error 0.05) my calculations show that 128 participants are required. With such an underpowered study, the results cannot be deemed as valid.

Comments:
Abstract: No issues
Background:
Line 139: Remove ‘used for pulmonary embolism prevention’ as anticoagulation indication is more than for PE.
Line 150: ‘comparing the analgesic effect of LIA with that of SNB’ – there has been another RCT looking at this but has not been cited (Combined femoral and sciatic nerve block vs combined femoral and perianarticular infiltration in total knee arthroplasty: a randomized controlled trial. J Arthroplasty. 2012 Dec;27(10):1806-11).
Materials and Methods:
Line 189 onwards: We need to know whether all patients underwent patella resurfacing or not as this will influence the results. What was the criteria used to decide on who was resurfaced or not?
Statistics: as mentioned above.
Results:
We need numbers who had resurfacing.
Line 310 onwards: I would prefer if the authors presented the raw NRS data. Need to know the spread and SD etc.
There was no mention of post-operative Diclofenac consumption – this is useful information as it is an indirect way of assessing pain – this needs to be included.
There was no data on fentanyl consumption intra-operatively. Again, this is useful as it will show whether the addition of SNB provided any pre-emptive analgesic
effect.

Discussion:

Line 341: The authors mentioned no difference in analgesic requirements, but I could not find this data within the article.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

None