

Significance of an obturator nerve block in knee arthroscopy

Sig.ra GRETA STANEVIČIENĖ (1), Dott. SAULĖ ŠVEDIENĖ (1)

(1) Republican Vilnius university hospital, Šiltnamių Str. 29, 04130., Vilnius, Lithuania.

Argomento: Anestesia loco-regionale e analgesia

Introduction. Knee arthroscopy is the most commonly performed orthopedic procedure. It was usual to use femoral and sciatic nerve blocks, but now it is recommended to add an obturator nerve block to improve perioperative conditions.

Aim. To assess benefits of adding an obturator nerve block in knee arthroscopy and optimize execution of the block, seeking a better perioperative supervision of patients.

Materials and methods. It was a two part single centre study. Firstly, archived data of 88 patients after a knee arthroscopy with peripheral blocks was collected retrospectively. Secondly, patients without contraindications for peripheral blockade preparing for a knee arthroscopy in the period of October 2016 – February 2017 were enrolled to prospective study. They received FSO block using lidocaine 1% with epinephrine. Perioperative data was collected and SPSS programme was used to count differences using Chi-square test, Independent-Samples T-test and non parametric tests.

Results. Retrospectively, FSO block required more frequent use of bupivacaine (29.9% vs. 85.7%, $p < 0.001$) and rarer use of midazolame (98.5% vs. 33.3%, $p < 0.001$). Prospectively, a total of 109 arthroscopies were performed, 16 of which were executed under triple peripheral block with an average 678.8 ± 56.4 mg dose of lidocaine without toxicity signs. Surgeons rated their comfort during surgery 8.7 ± 2.5 [0-10] and patients rated their satisfaction after anesthesia 9.1 ± 1.1 [0-10]. The comparison of retrospective (only FSO group) and prospective data showed that higher doses of lidocaine were used in prospective study ($p = 0.006$), though bupivacaine was not used at all.

Conclusion. The use of additional obturator nerve block is acceptable to patients and surgeons. A higher dose of lidocaine with epinephrine does not cause any toxicity. This provides an opportunity to avoid use of bupivacaine, resulting in shorter recovery time after anesthesia, effective control of postoperative pain and complications, faster discharge from hospital.