INPLASY

Can PENG block produce better results for patients undergoing hip surgery under spinal anesthesia: A meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202370004

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 July 2023 and was last updated on 01 July 2023.

INTRODUCTION

Review question / Objective Population: Patients undergoing hip surgery under the background of spinal anesthesia. Intervention: pericapsular nerve group (PENG) block. Comparator：other multimodal analgesic protocols. Outcome: at least one of the following outcomes must have been reported in the included study (pain score, muscle weakness, opioid consumption, and incidence of PONV).

Condition being studied Hip fracture is one of the most frequently Orthopedic surgery and accompanied by severe pain。hip fracture is a serious injury, complications can be life-threatening。Enhanced recovery after surgery(ERAS) can reduce mortality,blood transfusion rate,can reduce the length of hospital stay and reduce complications.

METHODS

Participant or population Patients undergoing hip surgery under the background of spinal anesthesia.

Intervention Pericapsular nerve group (PENG) block.

Comparator Other multimodal analgesic protocols.

Study designs to be included Randomized controlled trials(RCTs).

Eligibility criteria (1)Patients who choose to undergo hip surgery, aged 18-80 years old, ASAI-IV grade, regardless of gender(2) The research design type is clinical Randomized controlled trial (RCT); (3) The intervention group received PENG block as the intervention measure, while the control group received other multimodal analgesic protocols or nothing .Both the intervention group

and the control group received spinal anesthesiaPatients who choose to undergo hip surgery, aged 18-80 years old, ASAI-IV grade, regardless of gender The research design type is clinical Randomized controlled trial (RCT); (3) The intervention group received PENG block as the intervention measure, while the control group received other nerve blocks or no blocks Both the intervention group and the control group received spinal anesthesia.

Information sources PubMed, EMbase, CNKI, WANFANG Data will be searched for relevant information, updated to March 2023.

Main outcome(s) 1.pain score:measured by numeric rating scale (NRS) scores or Visual Analogue Scale (VAS) scores. 2.Opioid consumption in the 24h after surgery. 3.muscle weakness after surgery.

Quality assessment / Risk of bias analysis Cochrane Collaboration's risk of bias tools.

Strategy of data synthesis For each trial we will present outcome data as point estimates with mean and standard deviation for continuous outcomes and risk ratios(RRs)with corresponding 95%confidence intervals(Cls) for dichotomous outcomes. RevMan will be used for direct meta-analysis and ITC software was used for indirect meta-analysis.

Subgroup analysis By the treatment of the control group.

Sensitivity analysis RevMan and Stata will be used for Sensitivity analysis.

Country(ies) involved China.

Keywords PENG bliok,hip surgery,Meta-analysis.

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