INPLASY PROTOCOL

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Corresponding author:
Jingchen Liu

liujcnn@163.com

Author Affiliation:
Guangxi Medical University.

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Conflicts of interest:
None declared.

Perioperative intravenous lidocaine for postoperative pain after breast surgery: A meta-analysis with trial sequential analysis of randomized controlled trials

Li, J[1]; Huang, J[2]; Liu, JC[3].

Review question / Objective: **This study aimed to evaluate the efficacy of intravenous lidocaine on postoperative pain and recovery in patients undergoing breast surgery**
Condition being studied: **Chronic post-surgical pain (CPSP) is a common complication after breast surgery, which may remain or progress for many years and pronounced negative impact on the patient's general and mental health. Conventional medicine of CPSP includes opioids and nonsteroidal anti-inflammatory drugs. However, opioid overdose can lead to many complications, such as respiratory depression. Lidocaine, an amino-amide local anesthetic (LA) has reported to reduce postoperative pain in laparoscopic surgery. However, intravenous lidocaine in breast surgery is still unclear.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 08 October 2022 and was last updated on 08 October 2022 (registration number INPLASY2022100033).

INTRODUCTION

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to many complications, such as respiratory depression. Lidocaine, an amino-amide local anesthetic (LA) has reported to reduce postoperative pain in laparoscopic surgery. However, intravenous lidocaine in breast surgery is still unclear.

METHODS

Participant or population: Adults undergoing breast surgery.

Intervention: Perioperative intravenous lidocaine administration.

Comparator: Placebo or control.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: (1) Adult patients undergoing breast surgery;(2) Randomized controlled trials;(3) Lidocaine was administered via the intravenous route

Information sources: Pubmed, Embase and cochrane Library.

Main outcome(s): Chronic post-surgical pain(CPSP).

Additional outcome(s): Acute post-surgical pain, PONV, lintraoperative and postoperative opioid consumption, quality of recovery, hospital stay.

Quality assessment / Risk of bias analysis: Cochrane tools.

Strategy of data synthesis: (lidocaine OR lignocaine OR xylocitin OR xylocaine OR lidocainum OR lignocaine) AND (breast OR mastectomy).

Subgroup analysis: Subgroup analysis was conducted according to the follow-up time of CPSP, such as 3-month and 6-month.

Sensitivity analysis: STATA.

Language restriction: None.

Country(ies) involved: China.

Keywords: Lidocaine, breast surgery, postoperative pain, meta-analysis.

Contributions of each author:
Author 1 - Jia Li.
Email: zmu.lijia@hotmail.com
Author 2 - Jiao Huang.
Email: hjstet@163.com
Author 3 - Jingchen Liu.
Email: liujcnn@163.com

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