TITLE: Effectiveness of local anesthetic techniques in improving post-Caesarean section analgesia: a qualitative systematic review.

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INTRODUCTION: This qualitative systematic review was undertaken to assess the effectiveness of local anesthetic techniques, such as, wound infiltration and/or nerve blocks in improving post cesarean section analgesia.

METHODS: Authors independently searched MEDLINE, EMBASE and Cochrane Central Controlled Trials Registry for relevant randomized controlled trials. The reference list of identified trials, journal supplements, relevant book chapters and conference proceedings were searched for further relevant trials. All published and unpublished randomized controlled trials examining the effectiveness of wound infiltration and/or nerve blocks in which post cesarean section pain or the need for supplementary analgesia was an outcome, were eligible for inclusion. Trials were included irrespective of the language in which they were reported. Each study was assigned a quality score using Jadad scale(1)

RESULTS: Eleven* randomized controlled trials were found eligible for inclusion. They were divided into two groups on the basis of their study design. Five trials (n=264) examined the effectiveness of surgical wound infiltration, with single or repeated doses of local anesthetics. The latter being delivered by means of a wound catheter. With the exception of one, all of these studies reported a beneficial effect as denoted by either, reduced visual analogue pain scores or narcotic consumption. Quality scores ranged from 2~4. Another six trials (n=320) were identified which examined the effectiveness of nerve blockade in supplementing post cesarean analgesia. Out of these, five studies carried out bilateral ilioinguinal nerve block and the last one performed abdominal nerve blockade. With the exception of one all other trials examining efficacy of ilioinguinal nerve block found a beneficial analgesic effect. Two studies were able to show a reduction in pain up to 24 hours. The study utilizing abdominal nerve block also reported a significant improvement in postoperative pain as compared to controls. Quality scores of these studies ranged from 2~4.

DISCUSSION: Overall the results of this qualitative systematic review suggest that incisional wound infiltration and nerve blocks provide additional post caesarean analgesia.

REFERENCES:[1] Controlled Clinical Trials-196;17:1-12.

* Available from authors.