Abstracts

TO COMPARE THE EFFECTS OF 0.2% ROPIVACAINE CONTINUOUS INFUSION (CI) VERSUS PROGRAMMED INTERMITTENT BOLUS (PIB) ON POSTOPERATIVE ANALGESIA WITH ADDUCTOR CANAL BLOCK, IN PATIENTS UNDERGOING UNILATERAL KNEE ARTHROPLASTY- A RANDOMIZED CONTROL TRIAL

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Background and Aims Multimodal regimens, are the mainstay of postoperative analgesia. This study compares analgesic efficacy of, Programmed Intermittent Bolus (PIB) and Continuous. Infusion (CI), pumps, ultrasound guided Adductor Canal Block (ACB) with catheter, for unilateral knee arthroplasty.

Methods Ethical and Clinical Trial Registry approved, included patients were randomized into two groups, intraoperatively, either general, or spinal anaesthesia, pericapsular infiltration, postoperatively, ACB, received 0.2% Ropivacaine. Group-I, PIB pump 10 milliliters every 3 hours, Group-II, 6 milliliters/hour as CI. Additionally, both groups received Patient Controlled Analgesia (PCA) with 5 milliliters boluses and 30 minutes lockout interval. The Numerical Rating scale (NRS) score, plasma concentration of 0.2% Ropivacaine, adjunct analgesics, quadricep strength by straight leg rising (SLRT) test, Medical Research Council (MRC) scale for motor power, monitored at 0, 1, 4, 8, 24, 48, 72 hours, and Likert scale for patient satisfaction, measured at 72 hours. Sample size calculation, a difference in the NRS of two points to be clinically meaningful. Power of 0.80 and Standard Deviation (SD) of 2 points, it took at least seventeen patients from each group to detect a 2-point difference in NRS pain levels.

Results PIB group, patients experienced better analgesia only in the first 24 hours and motor power, in the first and fourth hour after recovery. Ropivacaine plasma concentration, at regular intervals were independent to the pain scores with movement and rest. Rescue analgesia was inconclusive in both groups.

Conclusions PIB option, proved better analgesia in the post operative period.

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RISK FACTORS OF HYPOTENSION DURING CESAREAN SECTION WITH SPINAL ANESTHESIA IN COVID-19 PARTURIENTS: A RETROSPECTIVE STUDY COMPARING WITH NON-COVID-19 PREGNANT WOMEN

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Background and Aims The incidence of hypotension in pregnant women with COVID-19 undergoing regional anesthesia remains a controversial. The aim of this study is to investigate the incidence of hypotension during spinal anesthesia in pregnant women infected with COVID-19, as well as to identify associated risk factors.

Methods This retrospective study compared COVID-19-positive parturients who underwent cesarean section with spinal anesthesia between January 2021 and June 2022 (group COVID-19) with a control group of patients who underwent the same procedure between January 2017 and December 2021 and were statistically matched for age, weight, and height with the group COVID-19.

Results The COVID-19 group received low-dose bupivacaine anesthesia and showed comparable levels of anesthesia and blood pressure reduction to the control group. However, they required more colloid usage. A positive correlation was noted in the COVID-19 group between heart rate and hospital stay duration (p=0.000, Spearman’s rho= 0.422). Further analysis based on initial heart rate revealed that group H (100 or higher) had lower Apgar scores at 1 minute, longer hospital stays, and more severe COVID-19 symptoms. Moreover, in group H, there was a positive correlation between heart rate and the lowest systolic blood pressure after spinal anesthesia (p=0.012, Spearman’s rho=0.528).

Conclusions COVID-19 pregnant women have a higher risk of hypotension during cesarean section under spinal anesthesia compared to non-COVID-19. Given the close association between preoperative heart rate and the extent of hypotension in COVID-19 pregnant women undergoing spinal anesthesia, vigilant monitoring of vital sign by anesthesiologists is crucial during the perioperative period.