Title of thesis: The analgesic effect of ultrasound guided bilateral pecto intercostal fascial plane block on sternal wound pain after open heart surgeries

Supervisors:

Dr. Maged Labib Boules Youssef

Dr. Mohamed Ahmed Hamed Ismail

Name of candidate: Alyaa Abdel Sattar Mohamed Hassan

Department: anesthesiology

Abstract

Keywords: Pecto Intercostal Fascial Plane Block; opioid consumption; sternotomy; postoperative pain**.**

Methods: seventy patients aged above 18 years and scheduled for on-pump coronary artery bypass grafting or valve replacement or both through median sternotomy were enrolled in this study. Patients were divided into two groups randomized by computer-generated random numbers: Group A which had the block performed through twenty milliliters of a solution of 0.25% bupivacaine plus epinephrine (5 mcg/ml), and Group B was a control group which didn't receive any block. The 24-hour cumulative morphine consumption, time to the first analgesic request, and Pain score were assessed.

Results: The 24-hour opioid consumption was significantly lower in group A than group B. The first analgesic request time was significantly longer in group A than group B. During the

postoperative period (4-24 hours), Objective pain scores were, on average, 0.58 units higher in group A than group B.

Conclusion: PIFB is a safe and effective technique in reducing opioid consumption and controlling post-sternotomy pain; also, it may have a role in better postoperative respiratory outcomes. Hence it can be considered as a part of ERAS protocols. However, being a novel technique, thorough investigations and more diverse studies are unquestionably needed.