

Effectiveness of Preventive High Thoracic Peridural Analgesia in Thoracic Surgery

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Introduction: Postoperative pain is a phenomenon observed with high frequency and is one of the most important challenges in the surgical field. Postoperative pain is the expected and temporary rise in pain that occurs following surgical procedures and is most usually the result of increased discomfort at the surgical site from newly created wounds. Postoperative pain pharmacological treatment typically requires a temporary increase in background opioid analgesic assistance, as well as the use of continuous regional block techniques in the immediate postoperative period. An essential component of surgical patient care is effective postoperative pain control. Aside from being inhuman, insufficient pain management will lead to increased morbidity or mortality. Evidence shows that surgery suppresses the immune system and is proportionate to the procedure's invasiveness. The deleterious effect can be minimized by good analgesia. The benefits of successful postoperative pain control include patient relaxation and thus satisfaction, earlier mobilization, reduced pulmonary and cardiac risks, reduced risk of deep vein thrombosis, faster recovery with less likelihood of developing neuropathic pain, and reduced treatment costs. Multifactorial is the failure to deliver good postoperative analgesia. Among its causes are inadequate awareness, fear of risks associated with analgesic medications, ineffective pain management, and insufficient resources. Advances in pharmacology, procedures, and education are making major inroads into postoperative pain control. Nursing awareness, patient treatment, and physician sensitivity would be critical to the success of any effort to improve pain control. Most patients undergoing surgical procedures feel acute postoperative pain, but research shows that there is sufficient postoperative pain relief in less than half. There are many preoperative, intraoperative, and postoperative interventions and management strategies to reduce and manage postoperative pain. Thoracic surgery leads to extreme postoperative discomfort that can lead to respiratory problems such as hypoxia, atelectasis, and pulmonary infections. In addition, inadequate pain control can lead to pain syndrome post thoracic surgery, which can continue for many years; therefore, appropriate pain management after surgery is essential. The pain following thoracic surgery is noteworthy in terms of its severity and duration. During the course of hospitalization and the first postoperative month, mild to serious rates of pain may not substantially decrease. Chronically, pain can last for months to years, and even low pain rates can impair functioning. This is not unusual that anesthesiologists have joined thoracic surgeons in becoming strongly supportive of analgesic treatments proven to reduce the pain following thoracic surgery. Epidural analgesia is frequently used to complement general anesthesia for surgical procedures in patients of all ages with mild to extreme comorbid disease; include analgesia in intraoperative, postoperative, peripartal, and end of life settings; and can be used as the main anesthetic for surgery from mediastinum to lower extremities. Additionally, epidural methods are widely being used for surgical treatments, acute pain treatment, and chronic pain management. Thoracic epidural analgesia is used after the thoracic surgery to reduce acute pain. Although some studies have shown that more than 50

percent of thoracic anesthesiologists favor thoracic epidural analgesia. Thoracic epidural analgesia is currently the protocol for thoracic surgery analgesia, and all patients undergoing major open thoracic surgical operations will have a thoracic epidural catheter inserted pre-operatively in the absence of contraindications. The use of high thoracic epidural analgesia in surgery is of interest because experimental and clinical studies have suggested that it decreases the response to surgical stress and enhances perioperative analgesia. The study was conducted in the "Abel Santamaría Cuadrado" Hospital in Cuba, during the period from January 2014 to January 2017, and included 37 patients who met the criteria. The aim of this study was to analyse the various factors and evaluate the descriptive statistics with frequency distributions and analysis of central tendency measures and find an effective analgesic method. The result shows that the application of the epidural along with morphine for thoracic surgery yielded very effective results as an analgesic method with adequate stability, minimal complications for analgesic rescue, which led to patient satisfaction.

Objective: In order to describe the clinical and hemodynamic results obtained with the use of high thoracic peridural as an analgesic technique during the postoperative period in patients who needed thoracic surgery. The study was conducted in the "Abel Santamaría Cuadrado" Hospital in Cuba, during the period from January 2014 to January 2017.

Method: A descriptive, longitudinal, prospective study was carried out in order to test the use of the high thoracic peridural as an analgesic. The study universe was made up of 37 patients who met the inclusion and exclusion criteria. The inclusion and exclusion criteria for participation in the study was fixed and all the 37 patients met with the criteria. The inclusion criteria are characteristics that the prospective subjects must have if they are to be included in the study and the exclusion criteria are the characteristics that can disqualify prospective subjects from the study. Descriptive statistics with frequency distributions and analysis of central tendency measures were used to evaluate.

Results: The mean for TAM was 83.81 mmHg, for FC it was 80.61 bpm, for FR it was 16.94 rpm and SpO₂ was 99.48%. There was a significant statistical relationship for complications, satisfaction, and postoperative recovery, with X² values of 56, 51; 99.60 and 33.11; and Fisher's exact test of 10.43; 9.46 and 7.82 respectively. Regarding the need for rescue analgesia, it was necessary in 7 patients for 10.77%.

Conclusions: After analysis of various factors and evaluating the descriptive statistics with frequency distributions and analysis of central tendency measures, the application of the epidural along with morphine for thoracic surgery yielded very effective results as an analgesic method with adequate stability, minimal complications for analgesic rescue, which led to patient satisfaction.