SHORT COMMUNICATION

Thrombocytopenia in cirrhotic hepatic patients undergoing lumbar decompression surgery using the modified Thoracolumbar Interfascial Plane Block (TLIP) technique

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ABSTRACT

Spinal surgery, which rates among the most painful procedures, necessitates proper perioperative pain treatment to enhance results. Similarly, it can be difficult to treat perioperative discomfort in those with cirrhotic hepatic thrombocytopenia. An alternative for perioperative pain control during lumbar decompression surgery for a patient with cirrhotic hepatic disease and thrombocytopenia is modified TLIP block.

Key Words: *TLIP; Cirrhotic Hepatic Patients*

INTRODUCTION

A 67-year-old man who had cirrhosis of the liver and thrombocytopenia underwent an endoscopic spinal decompression procedure that included laminotomy and flavectomy of the L4-L5 vertebrae. The patient was intubated following the onset of general anaesthesia using midazolam 1.5 mg, fentanyl 150 mcg, propofol 100 mg, and rocuronium 1 mg/kg. Pressure control mode was used to ventilate the lungs with tidal volume of 8 ml/kg BW, respiratory rate of 12/min, PEEP of 5 cm H2O, FiO2 of 50%, and 1% sevoflurane. At the L3 level, modified TLIP block was carried out. Bupivacaine 0.5% (20 ml) was injected on both sides between the longissimus and iliocostalis muscles. Modified TLIP block used intraoperatively provides acceptable analgesia and stable hemodynamics. 24 hours after surgery, the pain was rated as 1-2 on the Visual Analogue Scale (VAS). Within 24 hours of the operation, no further opioid was needed. Because of the modified TLIP block that was discovered in this patient, there were no neurological side effects or bleeding.

For individuals with hepatic cirrhosis and thrombocytopenia, modified TLIP block may be an efficient and secure analgesic method. The safety limits of modified TLIP block in individuals with coagulation disorders or anticoagulant use, however, need more investigation. Since spinal surgery is among the top 6 painful operations, effective pain management is necessary to enhance results [1,2]. Combination therapy or multimodal analgesics, which include intravenous and regional analgesia, are the most effective methods for managing pain. A local anaesthetic is injected between the iliocostalis and longissimus dorsi muscles to target the dorsal rami of the thoracolumbar nerve in the modified Thoracolumbar Interfascial Plane (TLIP) block. In comparison to the traditional TLIP block, the modified TLIP block is simpler to execute and has a better local anaesthetic distribution [3, 4]. The modified TLIP block may be an alternative to lessen the need for post-spinal decompression surgery and to lessen problems from opioid use and postoperative discomfort. Analgesic side effects are frequent and may be deadly in people with cirrhosis of the liver [5]. Due to increased splenic platelet sequestration and decreased liver thrombopoietin synthesis in cirrhotic individuals, thrombocytopenia frequently affects them. In this situation, regional anaesthesia may significantly increase the risk of bleeding or hematoma. The management of pain in patients with liver failure, hepatic cirrhosis, and individuals with thrombocytopenia urgently requires the use of appropriate analgesic medications and methods.

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