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Radical orchiectomy with iliohypogastric nerve blockage: A case report

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ABSTRACT

Iliohypogastric nerve blockage is rarely used for surgical operations in inguinal regions for the purpose of anesthesia without general or spinal anesthesia. A 33-year-old man with severe congenital chest and back deformities as well as cardiac and respiratory system problems had a testicular mass. General or spinal anesthesia may cause severe complications because of existing anatomical conditions and co-morbidities. Therefore, iliohypogastric nerve blockage was performed with the aim of achieving anesthetic activity without general and spinal anesthesia. There were no side effects related to Iliohypogastric nerve blockage during the postoperative period, including nausea, vomiting, hypotension, urinary retention, femoral nerve palsy, and local hematoma. Both the surgeon and the patient's satisfaction were evaluated.
Using iliohypogastric nerve blockage should be keep in mind for patients with anatomic or heart and pulmonary function problems with the goal of achieving anesthetic activity without general and spinal anesthesia.

Key words: Iliohypogastric nerve blockage, anesthesia

Introduction

Iliohypogastric nerve blockage is generally employed with general and spinal anesthesia to provide analgesia for adult patients during a postoperative period. It is advantageous as it does not yield side effects like urinary retention and lower extremity motor blockage [1]. In addition, iliohypogastric nerve blockage is rarely used for surgical operations in inguinal regions for the purpose of anesthesia without general or spinal anesthesia [2].

In this case, our goal was to share our successful iliohypogastric nerve blockage procedure used for anesthesia for a patient at risk with general and spinal anesthesia.

Case Presentation

We report the case of a 33-year-old male admitted to the urology unit for a testicular mass. The patient had severe congenital chest and back deformities as well as cardiac and respiratory system problems (Figures 1, 2, and 3). They were able to lie in the supine position. The results of the rest of the tests, including spinal rotation based on chest distortion, lower lung capacity, and the patient's vital capacity, yielded the following: 1.40 (41%), FVC: 1.12 (39%), FEV 6 :1.40 (41%), FEF% 2575 :1.21 (29%).

In general, general and spinal anesthesia is considered compromising and may cause severe complica-

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Figures 1, 2, 3: Congenital chest and back deformities.

tions because of existing anatomical conditions and co-morbidities. Therefore, iliohypogastric nerve blockage was performed with the objective of achieving anesthetic activity without general or spinal anesthesia.

The patient was informed in terms of anesthesia and possible complications. Informed consent was obtained from the patient. Subsequently, necessary permissions were obtained from the Ethical Committee.

Standard monitoring of the patient through intravenous means was conducted. Nasal 2 L / min oxygen and 5 mL / Kg / h saline hydration were provided.

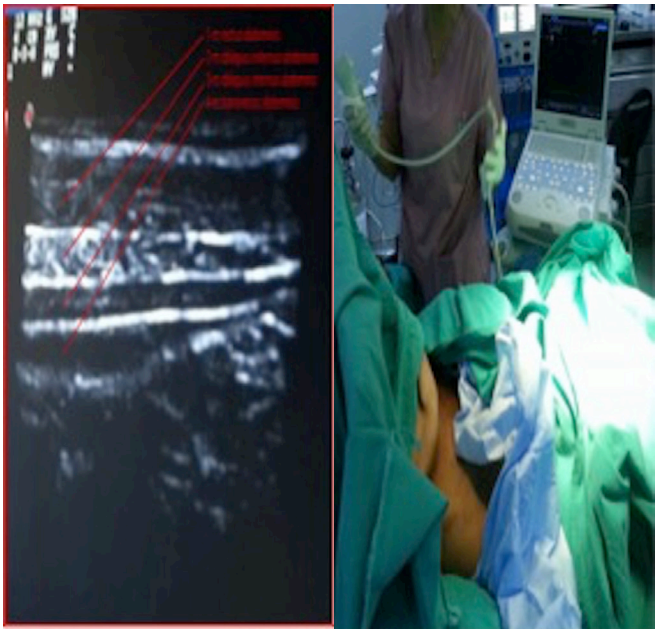
0.1 mg/kg midazolam was administered before the blockage. A 21 G blockage needle was preferred because it is known that 21 G needle injections are easy and tissue resistance (Stimuplex Braun, Melsurgen, Germany) IIHN has been described previously [1,3,4].

Abdomen muscle layers are seen as parallel lines while a linear ultrasound probe was used over the line between the SIAS and umbilicus third laterally. Anatomically, the skin, subcutaneous tissue, rectus abdominus, external and internal obliques, and transversus abdominus were observed retrospectively. All layers were passed with a 50-mm plane block needle through the in-plane technique and stopped over the fascia located between the obliques internus and transversus abdominus muscles. The fascia was separated into two pieces by supplying 2-3 ml local anesthetic. Next, 10-15 ml local anesthetic was administered after the position was confirmed. During the process, aspiration was utilized to confirm the correct plane before local anesthetic was supplied (Figures 4 and 5).

Duration of blockage and sensorial block onset time (T10 and L1) were recorded. After the blockage, the operation was commenced. Sensory block was confirmed via "pin prick" test.

The patient's sedation level was assessed with the Ramsey sedation scale (RSS 1: patient is anxious and agitated or restless, or both; RSS 2: patient is co-operative, oriented, and tranquil; RSS 3: patient responds to commands only; RSS 4: patient exhibits brisk response to light glabellar tap or loud auditory stimulus; RSS 5: patient exhibits a sluggish response to light glabellar tap or loud auditory stimulus; and RSS 6: patient exhibits no response). If the Ramsey score was over 3, 25-75 μg / kg / m propofol was administered.

When the average blood pressure and heart rate were greater than more than 20% of the normal values, remifentanil (0.5-1 μg/kg) was provided by intrave-



Figures 4, 5: Confirm correct plan by ultrasound before the administration of local anesthetic.

nous bolus. Surgery time was also evaluated. In case the postoperative pain score was VAS 3, intravenous tramadol was planned to be applied, but overall, it was determined that there was no need for it.

The patient was discharged from the ICU according to standardized discharge criteria. There were no side effects from iliohypogastric nerve blockage during the postoperative period, such as nausea, vomiting, hypotension, urinary retention, femoral nerve palsy, or local hematoma. Both the surgeon's and the patient's satisfaction were evaluated (poor, good, or excellent).

The block implementation period was about 4.2 min, and the time to reach an adequate sensory block was 10 min. Sensory block termination time was 125 min. The total amount of propofol and remifentanil was 180 mg. The patient was discharged from the PACU to the urology service after 30 min.

Results

The iliohypogastric nerve blockage procedure is an easy and safe method [5]. It has many unique advantages despite there being several drawbacks. However, colon perforation, hematoma, abscess, temporary nerve blocks, and local anesthetic toxicity should be kept in mind [1]. Regarding the benefits, for one, patients that undergo iliohypogastric nerve blockage may be mobilized earlier and the impact of postoperative analgesia only lasts between 3-6 hours. As well, the 24-hour analgesic consumption is decreased. Additionally, patients with cardiac and pulmonary problems from severe congenital kyphoscoliosis have been shown to receive anesthesia successfully with the iliohypogastric nerve blockage procedure.

When employing iliohypogastric nerve blockage, it should be borne in mind that for patients with anatomic or heart and pulmonary function problems, the ultimate objective is to achieve anesthetic activity without general or spinal anesthesia.

Conflict of interest statement

The authors have no conflicts of interest to declare.

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