16. **Epidural volume expansion: is there a ceiling effect?**

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**Background and aim:** The optimal volume for epidural volume expansion is not clear (1,2). Aim of this study was to evaluate the clinical influences of 5, 10, 15, and 20 ml epidural saline loading after spinal anaesthesia.

**Methods:** After obtaining approval from local ethics committee, 75 healthy adult patients electively undergoing lower abdominal and limb surgery were recruited to the study. Average surgical period less than 1 hr was inclusion criteria. Sequential spinal and epidural anaesthesia were performed in lateral recumbent position at L3-4 or L4-5 inter-space using needle through needle technique (Es- pocan, B.Braun, Germany). Epidural anaesthesia was achieved using hanging drop technique and pencil point spinal needle (27 G) was introduced, and plain bupivacaine 10 mg was administered within a min. Epidural catheters were advanced and patients randomly allocated to receive 5, 10, 15, 20 ml saline (n=15 in each group) through the catheter and controls (no volume, n=15). The level of block was assessed every 5 ml for motor and sensory involvement with Bromage’s scale, pinpricks, and cold sensation.

**Results:** There were no significant differences between epidural saline treatment groups on the maximum height of spinal anaesthesia and duration of motor block. Both of two determinants were significantly lower in the control group. On the other hand, duration of analgesia and time to regression to the L1 level was significantly longer in patient receiving 15 and 20 ml saline. Side effect profiles were similar.

**Conclusions:** Our results indicate that, while ceiling effect was observed on maximum height and duration of motor block, duration of analgesia is increased with epidural saline loading in spinal anaesthesia using plain bupivacaine.

**References**

173. **Does ondansetron effect on the subarachnoid block performed with bupivacaine?**

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**Background and Aim:** Ondansetron is a selective 5-hydroxytriptamin antagonist. It was shown that ondansetron have local anesthetic actions but it was also demonstrated that ondansetron antagonized the sensorial block level of subarachnoid anesthesia performed by using lidocain (1). Our aim was to search whether or not the intravenous ondansetron that is used for antiemetic purposes prophylactically has an effect on the characteristics of subarachnoid block performed by using bupivacain + fentanyl and on the time of the first analgesic requirement in postoperative period.

**Methods:** After obtaining approval from the local ethics committee and written informed consent, ASA physical status I-III, 42 patients scheduled for unilateral inguinal herniorrhaphy were included in to the study. Patients were randomly assigned to two groups. Group I received ondansetron 8 mg iv 15 minutes before the subarachnoid injection and group II received an equal volume of 0.9% normal saline solution. Subarachnoid block was performed with CSEA technique at the L3-4 or L4-5 interspace. 5 mg 0.5 % bupivacain + 25 μg fentanyl were injected intrathecally. Hemodynamic parameters, sensorial and motor block parameters, and side effects were assessed. For statistical analysis, Mann Whitney-U and chi square tests were used. P< 0.05 was considered significant.

**Results:** Demographic data, hemodynamic parameters, side effects, time to reach T6 dermatome and two segment regression time were similar. S2 sacral regression and total anaesthesia time were shorter in the ondansetron group but motor block parameters were similar between the groups.

**Conclusion:** Even though the ondansetron in our study which is used as intravenous before subarachnoid injection antagonized the sensorial and motor block obtained from bupivacain and fentanyl combination, to determine the certain mechanism of action of ondansetron on antinociception and to determine its relation with other local anesthetics, we still need to further studies.

**Reference**