The urinary retention incidence after spinal anaesthesia with Lidocaine 2% and Bupivacaine 0.5%.

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Background and Goal of Study: Spinal anaesthesia is quick, cost-efficient, and safe, and is the ideal solution for some surgeries such as Chryptochidi, Herniy and Hydrocele.

- Urinary retention after spinal anaesthesia has reported incidence between 0%- 69% which is why successful micturition is still an important discharge criterion in many centers.

- The purpose of this study was to measure the incidence of urinary retention and to identify the factors which affect the incidence of urinal retention after spinal anaesthesia with Lidocaine 2% and Bupivacaine 0.5%.

Materials and methods: In this study are involved patients aged 18 to 65 years old. ASA I-II.

- The patients underwent Chryptochidi, Hydrocele and Hernie repair surgeries.

- Patients with prostate hyperplasia or urogenital pathologies (incontinence, cystoureteric reflux, know bladder retention) intraoperative blood loss>200 ml, pregnancy, alcohol or drug abuse, were excluded from the study.

- An eco of the bladder was done to the patients before the surgery and

was noticed that it was empty because the patients had urinated before entering the operation room.

- Monitoring was standard with EKG, SaO2 and measurement of the blood pressure .

- The subarachnoid space was punctured with a 26 G Whitacre needle at L2/L3 or L3/L4 with Lidocaine 2%-3ml (60mg) or Bupivacaine 0.5%-3ml(15mg).

- Data were analyzed using Student's test and Fisher's exact test to detect significant differences among the groups.

Correlations among outcome parameters and using Pearson's correlation test.

- Linear and logistic uni- and multivariate regression analyses were performed to detect influencing and risk factors for catheterization A -P value of < 0.01 was deemed to be statistically significant.

Results and discussion: Results: Number of patients was 90.87(96%) of them were males and 3 were females (4%). Mean age was 37(range 18-65 yr).

- Mean (SD) duration of surgery was 60 min (range 45 min -120 min).

- Patients received a mean (SD) of 780 ml (range 500ml – 1500ml) Ringer's Lactate before and during surgery and 650ml (range 350 ml -1500 ml) after operation until micturition or urinary catheterization .

- Use of Atropine was necessary in 20 of these patients. Retention was only noticed in men.Total i.v fluid administration was unexpectedly higher in patients who voided spontaneously in comparison with those who needed catheterization.

- Urinary retention leading to catheterization was required in 24 patients(26%).

- The incidence of urinary retention after spinal anaesthesia with Bupivacaine was significantly higher [(42%),17 of 40 patients] than Lidocaine[(14%), 7 of 50] .(P<0.01).

- Mean time (SD) between spinal puncture and urinary catheterization was 190 min(range 90-450min).

- Mean time between spinal puncture and spontaneous micturition was significantly longer (240 min(SD60), range 60-450.P<0.0001)

- Mean bladder volume was lower in patients able to micturate compared with those who required catheterization (P<0.08).

Conclusion :We found an incidence of postoperative urinary retention of 26%.

- The incidence of urinary retention after spinal anaesthesia with Bupivacaine was significantly higher (42%patients) than Lidocaine (14%, (P< 0.01)