The role of using Ephedrine after the administration of spinal anaesthesia in preventing hypotension after lowering the patients' legs at the end after the transurethral resection of prostate (TURP) and transurethral resection of bladder tumor (TUR BT).

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•Spinal anaesthesia is quick, cost-efficient, and safe, and is the technique of choice in urology for transurethral resection of prostate (TURP) and transurethral resection of bladder tumour (TUR BT). The major complication of spinal technique is risk of hypotension. Intravenous crystalloid pre-hydration is not very efficient. Ephedrine is a sympathomimetic that has both a direct (alpha and beta receptor agonist) and indirect (release of norepinephrine from presynaptic nerve terminals) mechanism of action. Both crystalloid preloading and intramuscular ephedrine are used in clinical practice for preventing arterial hypotension secondary to spinal anesthesia.

•The aim of this study was to investigate the role of Ephedrine 25mg/s/c use right after the application of spinal anesthesia in blood pressure after lowering the legs at the end after the TURP, TUR BT.

Materials and Methods: In this study are included all patients who have undergone TURP or TUR BT. Total number is 120 patients aged between 50–82 years old. Out of these patients 20 were females and 100 males. Study period June–November 2016.

•Patients were separated in two groups G. E (Ephedrine group) and G.C (control group).

•Patients of G.E group were given 25 mg ephedrine s/c right after the application of spinal anesthesia. On the other hand G.C patients were not given anything.

•Anesthesia is realized in level L2 –L3 with sol. Bupivacaine 0.5%–3ml (15mg).

•Hypotension that occurred right after spinal anaesthesia was corrected with diluted bolus Ephedrine.

•We have analyzed blood pressure, cardiac frequency and the consumption of Ephedrine which was used. Chi-square test was applied to compare the mean values of systolic blood pressure. P value ≤ 0.05 was considered statistically significant.

Results and Discussion: There were no significant differences between the two groups in age (P = 0.8) and weight (P = 0.8), chronic alcohol consumption, (P=0.6) history of hypertension, (P=0.8), body mass index, (P=0.6) sensory block height, (P=0.6) of patients.

• There were no differences between the two groups regarding blood loss, Ephedrine was considerably during the intervention, but also at the end of it after the legs were lowered, which made a big difference between the two groups.

• What was noticed was the difference between the groups in the consumption of Ephedrine.

•In G.E. the Ephedrine was consumption mean (SD) 15 mg (range 10–20 mg).

• While in the G.C. the Ephedrine was consumption mean (SD) 45mg (range 30–60 mg).

• In G.E there was significantly less use of Ephedrine compared to G.C (P < 0.001).

• There was noticed a sharp decrease of the systolic pressure after lowering the legs in G.C compared to G.E, where there was no decrease in blood pressure at all (P < 0.001).

•Systolic blood pressure significantly decreased from baseline in the (G.C) control group (from 130 $\pm$ 17 mm Hg to 60 $\pm$ 17 mm Hg), (after lowering the legs). (P = 0.005), while in the G.E. ephedrine group no decrease in the blood pressure was noticed from the basal one. (from 120 $\pm$ 12 mm Hg to 105 $\pm$ 10 mm /Hg (after lowering the legs). (P = 0.005)].

•The (G.C.) control group had a lower Systolic blood pressure, than G2 ephedrine group Statistically significant between of them (P = 0.001).

Conclusion: We concluded that the usage of 25 mg Ephedrine s/c is effective in preventing hypotension after lowering the patients' legs at the end of the TURP and TUR BT intervention (P = 0.001).

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