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YAŞAMSAL TEKNOLOJİ



[P-641]

Role of spinal anesthesia in the endoscopic treatment of distal, medial, and proximal ureter stones

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INTRODUCTION: Sympathetic fibers of the ureter arises between 10th thoracal and 2nd lumbar segments. Nociceptive fibers arrive the same segments by sympathetic pathways. Effective neural block of these segments is necessary to achieve adequate analgesia and anesthesia.
PURPOSE: The aim of this study was to evaluate patients who had ureterorenoscopy (URS) under spinal anesthesia in order to determine patient profile and anesthesia management according to localization of stone.
MATERIAL-METHOD: After we obtained approval from Ethics committee patients who had URS operation due to urinary stones were retrospectively evaluated. Patients who got spinal anesthesia were included. The patients were evaluated for demographic data, duration of operation, duration of hospital stay, and size and localization of stone.
FINDINGS: A total of 111 patients including 84 males (75.6%) were operated with spinal anesthesia. There was a significant difference according to sex and there were more ureter stones in male patients (p=0,001). No difference was found in operation time, duration of hospitalization, and stone size among stones at different localizations of ureter under spinal anesthesia.
DISCUSSION: Although spinal anesthesia is commonly used for treatment of distal and middle ureteral stones general anesthesia is preferred for proximal ureteral stones because it can help to manage stone movements by regulation of ventilation parameters. But there are studies in literature which reported that spinal anesthesia decreases durations of operation and hospital stay compared with general anesthesia, it doesn't pose additional risk, and it is a safe method which achieves patient satisfaction and minimal postoperative pain.
CONCLUSION: No difference was found between stone localization and duration of operation, duration of hospital stay, and stone size in distal, middle and proximally located stones under spinal anesthesia. Spinal anesthesia may be chosen for management of anesthesia in the treatment of stones located at all three parts of ureter.

Demographic features of the patients, operation and hospitalization durations, and ureteral stone sizes.

	Male	Female	P value
Number of patients	84 (75,5%)	27 (24,5%)	0.001*
Age (year)	40,89 ± 14,56	37,85 ± 16,70	0,365
Operation duration (min)	46,98 ± 11,23	48,48 ± 7,53	0,517
Hospitalization duration (day)	2,81 ± 1,83	3,04 ± 3,58	0,666
Stone size (mm)	7,47 ± 1,95	6,78 ± 2,35	0,133

Variables except patient number are given as mean ± standard deviation (SD).
**P < 0.001*

Association of demographic features of the patients, durations of operation and hospitalization, and stone size with localization of ureteral stone.

Localization of ureteral stone	Distal	Middle	Proximal	p value
Sex: 1. Male 2. Female	58 (82,9) 12 (17,1)	12 (63,2) 7 (36,8)	13 (61.9) 8 (38.1)	0.077
Age (year)	41.64 ± 15.44	34.47 ± 10.84	39.47 ± 16.4	0.182
Operation duration (min)	47.684± 10.91	48.52 ± 8.18	45.14 ± 11.03	0.547
Hospitalization duration (day)	2.92 ± 2.54	3.10 ± 2.6	2.47 ± 1.4	0.672
Stone size (mm)	7.35 ± 2.05	6.84 ± 2.31	7.52 ± 1.96	0.547