

PP-002

Is SIRS after PCNL procedure on the solitary kidney related to the size, quantity and number of stones?

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Study Objective: The aim of this study was to evaluate the influence of PCNL procedure on the solitary kidney, on the occurrence of SIRS syndrome, depending on the number, size and location of the stones.

Material and Method: A retrospective study involved 29 patients who underwent PCNL procedure due to nephrolithiasis in the solitary kidney. The analysis included 6 men and 23 women at the ages of 28 to 72 years. In these patients SIRS parameters were evaluated (leukocytosis over 10,000, heart rate over 90/min, temperature over 38°C and respiratory rate over 20/min.). Location, size and number of stones were also analysed in order to evaluate the occurrence of SIRS syndrome in relation to these parameters. 21 stones were removed from the renal pelvis, 11 stones from the lower renal calyx, 3 stones from the upper renal calyx and 1 from the middle renal calyx. 27 stones were below 20 mm in diameter, and 9 stones were over 20 mm in diameter. In 22 patients one stone was removed, whereas in 7 patients - two stones.

Results: SIRS syndrome was observed in the case of 3 stones located in the renal pelvis (14.3%). After removing 18 pelvic stones (85.7%) no symptoms of SIRS were observed. SIRS syndrome did not occur in any patients with stones located in the calyces ($p=0.5054$). In 3 patients with one stone (13.6%) the symptoms of SIRS syndrome were observed, whereas, in 19 patients with one stone (86.4%) no symptoms of SIRS syndrome were present. None of the patients with two stones had any symptoms of SIRS syndrome ($p=0.7494$). The removal of 3 stones smaller than 20mm (11.1%) resulted in SIRS occurrence, whereas, the removal of 24 stones smaller than 20mm (88.9%) did not trigger SIRS syndrome ($p=0.4451$).

Conclusion: The size, quantity and number of stones removed from the solitary kidney by means of PCNL method, have no influence on the occurrence of SIRS syndrome as a complication.

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