

PP-032

Urinary tract bacterial contamination: Looking for a predictor and its post-PCNL aftermath

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Purpose: To review the influence of urinary tract bacterial contamination on post-operative fever, history of previous nephrostomic tract or ureteral stenting and postoperative hospital stay.

Material and Methods: Between 2007 and August 2012, 133 consecutive PCNL patients were enrolled from a single center and all patients had intra-operative bladder urine sample, pielic urine sample, stone cultural exam and all received preoperative antibiotic prophylaxis.

Pre-PCNL bladder urine culture, intraoperative pielic urine culture and stone cultural exam, postoperative fever (>38,5°C), prior ureteral stenting and prior nephrostomic tract, length of postoperative hospital stay were recorded.

Relationship between various patient and operative factors, occurrence post-operative fever, length of postoperative hospital stay were assessed using logistic regression analyses.

PARAMETER	(SD/%)
Number of patients	133
Age	54,4 (15,4) years
Stone Burden	629,6 mm ² (773 mm ²)
Sex	88 (66,2%) Male 45 (33,8%) Female

Results: Sixtyfour patients (48,1%) had one or more positive culture sample exam (Positive Cultural Exams Group - PCEG). Sixty-nine patients (51,9%) had negative results in all cultural exams (Negative Cultural Exams Group - NCEG). In NCEG 14 patients (20,28%) developed fever after-PCNL, 20 patients (31,25%) developed postoperative fever. 13 Patients (18,84%) in NCEG had prior ureteral stenting or nephrostomic tract, in contrast to 24 patients in PCEG. 7,04 Days was the medium postoperative hospital stay for NCEG in comparison to 9,52 days for PCEG.

PARAMETER	Negative Cultural Exams Group (NCEG) number (SD/%)	Positive Cultural Exams Group (PCEG) number (SD/%)	90% CI
Number of patients	69 (51,9%)	64 (48,1%)	
Age	55,4 (17,4) yrs	53,3 (12,9) yrs	0,214
Stone Burden	598,9 (917,0) mm ²	662,1 (598,8) mm ²	0,638
Sex	47 (68,1%) Male 22 (31,9%) Female	41 (64,1%) Male 23 (35,9%) Female	
Previous ureteral stenting or nephrostomic tract	13 (18,8%)	24 (37,5%)	0,008
Operative Time	132,9 (48,3) minutes	130,8 (55,3) minutes	0,817
Stone Free	59 (85,5%)	48 (75,0%)	0,294
Post-PCNL fever	14 (20,28%) patients	20 (31,25) patients	0,05
Postoperative Hospital Stay	7 (2,3) days	9 (6,6) days	0,005

Conclusions: The presence of a cultural positivity on pre-PCNL bladder urine, pielic urine or stone is frequently associated with a previous ureteral stenting or nephrostomic tract. PCEG Patients have a higher risk to develop post-PCNL fever and to have a longer postoperative hospital stay.

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