



Risk Factors Predicting Fever Following Trans-Urethral Prostatectomy

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MP73-11

OBJECTIVE

- **Transurethral Resection of Prostate (TURP)** is considered a gold standard procedure for BPH.
- Complications such as bleeding, urinary infection, bladder wall injury and TUR syndrome are commonly reported.
- UTI is the most common complication.
- The rate of UTI following Monopolar or Bipolar TURP is as common as 4.1-6.2% and 2.6-8.4%, respectively (Omar et al. BJU. Jan 2014).
- We aimed to evaluate the risk factors predicting for fever after TURP surgery at our institution.

METHODS

- Retrospective descriptive study.
- January 2016 to August 2017.
- Urology department, Rambam Health Care Campus, Haifa, Israel.
- Post-operative Fever (>38 degrees Celsius) during the first 7 days following the procedure.
- **Variables:** Presence of permanent catheter, Diabetes Mellitus (DM), Prior antibiotic Treatment, pre-operative urine culture, Prostate Size and combined cystolithotripsy with TURP .

RESULTS

- 177 patients underwent TURP during the study period.
- All patients received antibiotic prophylaxis:
 - 83 patients with negative urine culture were treated empirically with IV Amikacin + Ampicillin.
 - 94 patients with positive urine culture were treated according sensitivity profile.
- **9/177 (5.1%) patients developed post-operative fever.**

Number of Patients	177
Age (Mean ±SD, Range)	71±8.7 (50-91)
Prostate Size (Median± SD, Range)	44.5±23.9 (9-150)

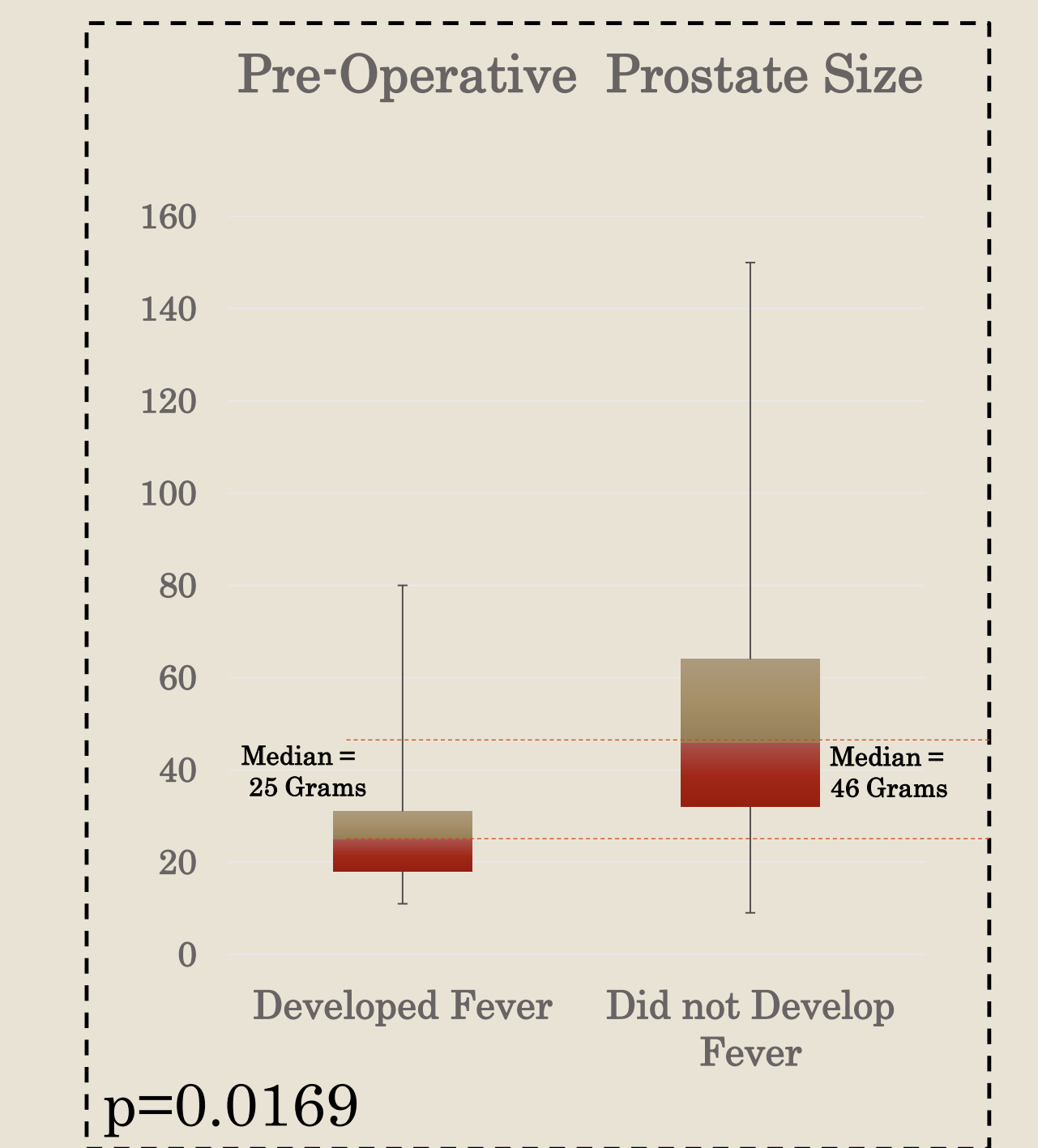
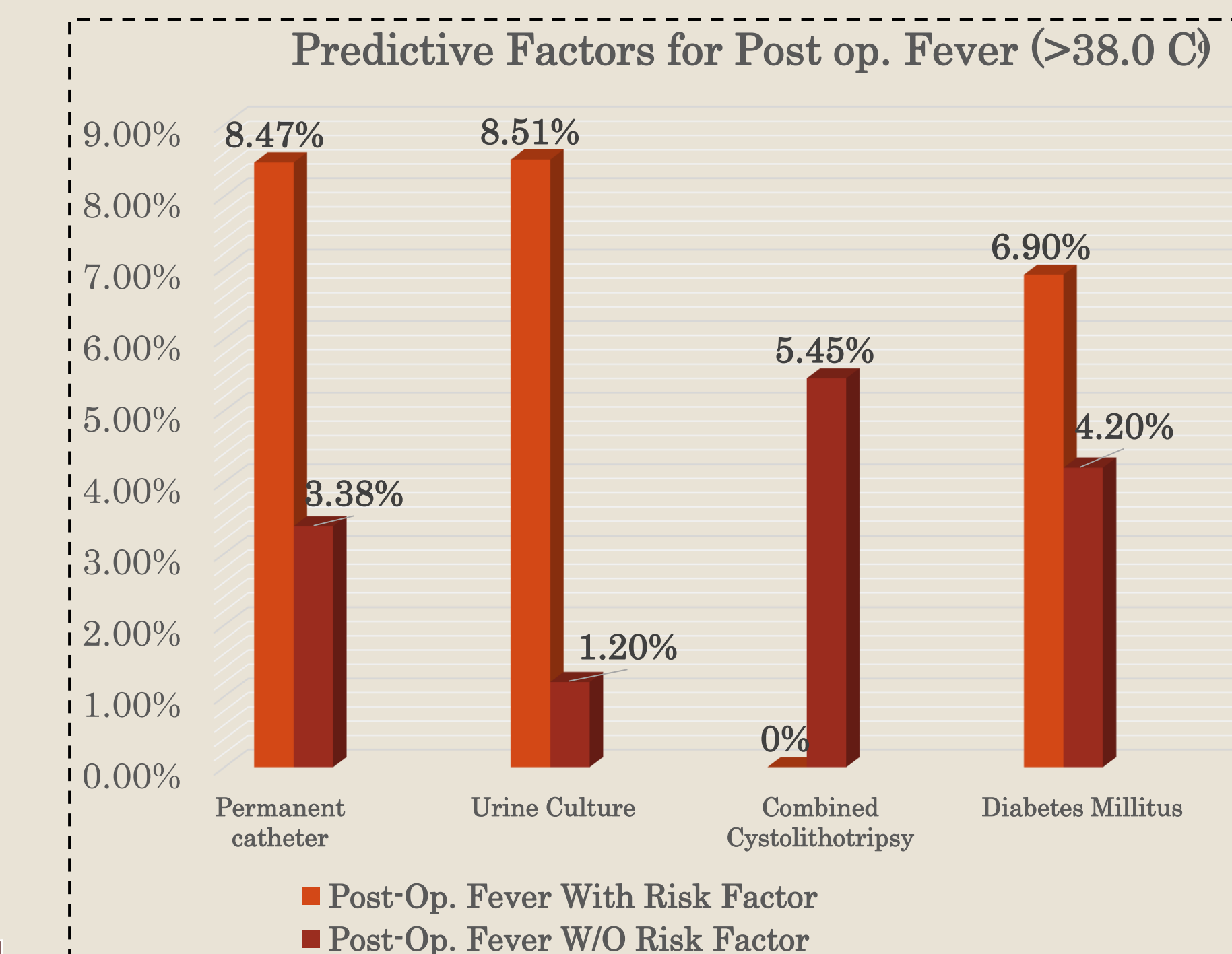
- 1/83 (1.2%) with **negative urine culture** vs. 8/94 (8.51%) with **positive urine culture** (8.5%) Developed fever post-OP (**p=0.0375**)
- Patients with **smaller** than median prostate size were more prone to develop post operative fever (Median prostate size = 44.5± 23.9 cm³ p-Value=0.017.

Table 2. Univariate analysis of predictive factors for post op. Fever (>38.0 C)

Parameter	Risk Factor	No. (%)	Post operative fever		P-Value
			+	-	
Permanent catheter	Yes	59 (33.3%)	5 (8.47%)	54 (91.52%)	0.1623
	No	118 (67.6%)	4 (3.38%)	114 (96.6%)	
Preoperative Urine Culture	Positive	94 (53.1%)	8 (8.51%)	86 (91.4%)	0.0375
	Negative	83 (46.9%)	1 (1.20%)	82 (98.8%)	
Combined Cystolithotripsy	Yes	12 (6.7%)	0 (0%)	12 (100%)	1
	No	165 (93.3%)	9 (5.45%)	156 (94.5%)	
Diabetes Mellitus	Yes	58 (32.7%)	4 (6.9%)	54 (93.1%)	0.4775
	No	119 (67.2%)	5 (4.2%)	114 (95.8%)	

RESULTS

- Prostate size, indwelling urethral catheter pre-OP or Diabetes Mellitus **did not** predict post TURP fever.
- Preoperative positive culture (if properly treated prior to surgery) and combining cystolithotripsy with TURP **Did not** increase post-operative fever.
- None of the patients who were treated antibioticly a week prior to surgery developed fever (N=16).



CONCLUSIONS

- Positive urinary culture prior to TURP is a frequent event.
- In our study, positive urinary culture & smaller prostate size increased the risk of postoperative fever.
- Although positive urinary culture increased the risk of post TURP febrile events, it does not increase the risk of post-OP sepsis.