

The Correlation of Post-PFS and Spontaneous PVR Urine Volume Measurements with Bladder Contractility and BOOI in Men with Non-Neurogenic LUTS

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To compare PVR urine values measured after PFS with spontaneous PVR obtained at any time point.

Men with non-neurogenic LUTS undergoing PFS between 2018–2024 were retrospectively analyzed.

Patients were classified by **obstruction and contractility status** using the AG nomogram and UPSTREAM thresholds.

227 men were included (median age: 62 years); post-PFS PVR was significantly higher in patients with **DU** according to AG classification.

Obstructive patients had higher PVR values, with both spontaneous and post-PFS PVR significant in AG, but only spontaneous PVR significant in UPSTREAM.

Post-PFS PVR >100 mL was associated with DU in both classifications, while **>200 mL** was associated with DU in UPSTREAM.

Post PFS PVR is more effective than spontaneous PVR for identifying patients with DU, whereas spontaneous PVR is more closely associated with obstruction.

These findings suggest that both the timing of PVR measurement and the use of specific threshold values may help differentiate the underlying pathophysiology

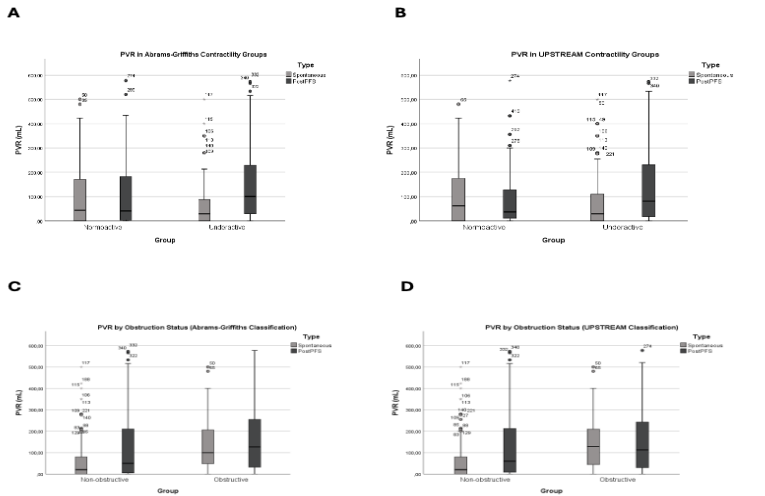
Table 1. Spontaneous vs Post PFS PVR According to Contractility and Obstruction Status

Classification	Group	Spontaneous PVR (ml)	P value	Post PFS PVR (ml)	P value
AG-Contractility	Normoactive (n:84)	75.5 (0-197.5)	0.254	41.5 (2-186.8)	0.012
	Underactive (n:143)	34 (0-99)		101 (29–230)	
UPSTREAM-Contractility	Normoactive (n:42)	90 (0–178)	0.522	37.5 (8.3–137.8)	0.051
	Underactive (n:185)	44 (0–155)		82 (18–232)	
AG-Obstruction	Non-obstructive (n:159)	28 (0–100)	0.001	50 (2–211)	0.036
	Obstructive (n:68)	100 (44–209.5)		126.5 (31–255)	
UPSTREAM-Obstruction	Non-obstructive (n:171)	30 (0–105)	0.003	60 (8–213)	0.119
	Obstructive (n:56)	128 (40–213)		113 (29–249.8)	

AG (Abrams Griffiths), IQR (Interquartile Range), PFS (Pressure-Flow Study), PVR (Post-Void Residual urine volume)

All continuous variables are presented as median (interquartile range, IQR)

Figure 1. Comparison of Spontaneous and Post Pressure Flow Study Postvoid Residual Volumes According to Detrusor Contractility and Obstruction Status



A: Comparison of PVR volumes between normoactive and underactive detrusor groups according to the Abrams–Griffiths classification.

B: Comparison of PVR volumes between normoactive and underactive detrusor groups according to the UPSTREAM classification.

C: Comparison of PVR volumes between non-obstructive and obstructive groups according to the Abrams–Griffiths classification.

D: Comparison of PVR volumes between non-obstructive and obstructive groups according to the UPSTREAM classification.