

Abstract Reproduction Form B-1

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Title (type in CAPITAL LETTERS)	POSTERIOR URETHRAL SENSORY THRESHOLD AND PRESSURE TRANSMISSION AFTER RADICAL PROSTATECTOMY

Aims of Study: Understand the pathophysiology of urinary incontinence following radical prostatectomy. This continues to be a distressing problem and its mechanisms remain unclear.

Methods: Cystometry, urethral pressure profile, and posterior urethral sensory threshold measurements were performed in 34 patients undergoing radical prostatectomy. Preoperative pressure transmission (PT₀) was determined by maximal urethral pressure divided by maximal abdominal during cough maneuvers at a bladder volume of 200ml. Postoperative PT (in % of PT₀), sensory threshold (ST), maximal urethral closure pressure (MUCP) and functional sphincter length (SL) were measured after 6 weeks and 6 months. These parameters were compared between continent and incontinent patients.

Results: After 6 weeks, 6 patients (18%) were continent, and after 6 months 28 (82%) of the patients were totally dry. PT₀ was not different in postoperatively continent and incontinent patients.

Parameter [mean ± SD]	preop cont	6 weeks postop			6 months postop		
		kont.	inkont.	p	kont.	inkont.	p
PT [in % of PT ₀]	100	77±12	37±17	0.04	91±31	58±18	0.05
MUCP [cmH ₂ O]	49	35±6	11±9	0.03	42±9	23±6	0.03
SL [mm]	50	24±7	26±6	n.s.	25±6	25±3	n.s.
ST [mA]	16	65±8	84±11	0.04	41±12	70±8	0.04

Conclusions: Posterior urethral sensitivity and pressure transmission are postoperatively impaired, but increase after 6 months. Posterior urethral sensitivity and pressure transmission seem to be important factors to achieve early postoperative urinary continence after radical prostatectomy.