

URETHRAL PRESSURE PROFILE FOR THE PERIOPERATIVE ASSESSMENT OF THE PATIENTS UNDERGOING RADICAL PROSTATECTOMY

Hypothesis / aims of study

To investigate if urethral pressure profilometry (UPP) should be performed under gravity (UPPG) or under pressure of 150mmHg (UPPP) and the association of UPP findings with urinary continence control at 3rd month after radical prostatectomy

Study design, materials and methods

We prospectively assessed the patients who were scheduled for radical prostatectomy from January to December 2013 in urology nurse clinic pre-operatively, 1st and 3rd month after radical prostatectomy. Pre-operative patient counselling, 1-hour pad test, validated questionnaires, urodynamic studies and urethral pressure profilometry (UPP) were performed.

Results

There were 33 patients fulfilled the inclusion criteria. Fifty percent (16/32) patients achieved urinary continence by having ≤ 1 gram urine leak in 1-hour pad test. At 3 months after prostatectomy, the functional profile length decreased from 6.1 cm pre-operatively to 2.4cm by UPPG and decreased from 6.1cm to 3.1cm by UPPP. Similarly, the maximal urethral closure pressure (MUCP) decreased from 67 to 43cmH₂O by UPPG and decreased from 86 to 53 cmH₂O by UPPP.

Interpretation of results

Only the post operative MUCP from UPPG correlated with the urinary continence at 3rd month ($p=0.014$). The preoperative UPPP masked the pressure peak pattern from internal sphincter and the prostate which predicted the continence outcome at 3rd months after prostatectomy ($p=0.028$).

Concluding message

UPP performed by gravity correlated better that performed with pressure bag with the clinical urinary continence at 3rd months after radical prostatectomy. The pattern of pre-operative UPP predicted the early continence outcome which facilitated patient counseling.

Disclosures

Funding: nil **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** no need **Helsinki:** Yes **Informed Consent:** Yes