

OAB walls revealed increased severity of inflammatory cells infiltration of bladder wall (neutrophils and mononuclear cells). Compared to the control group, a single dose of CYP caused increased activity of mast cells. However, chronic administration of CYP suppressed the activity of mast cells within bladder wall. Furthermore, CYP-treated rats showed clear signs of inflammation; however the alteration of bladder histological structure depends on the mode of CYP administration. Acute model caused more severe mucosal abrasion compared to chronic one which revealed more developed haemorrhage changes within bladder wall. Additionally, in acute and chronic OAB we observed similar tissue oedema changes. Optional comparison bladder histological architecture and hyperemia degree between rats after (group I) and without (group IV) bladder catheter implantation showed no significant changes.

Conclusions: CYP induces chemical cystitis with alteration in histological structure and inflammatory cells activity. The suppression of mast cells in chronic OAB seems to be a result of direct cytotoxic effect of CYP, as well as stems from a decrease of peripherally (within bladder) substance P release by afferent C fibres endings. Our results prove that acute model of CYP-induced cystitis in rats is more credible for further evaluation of neurogenic inflammation response in overactive bladder.

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Male sling operations in male urinary incontinence

M. Sunay¹*, L. Emir², M. Dadalı², S. Bagbancı², D. Erol². ¹Ankara Training and Research Hospital, Ministry of Health, 1st Clinic of Urology, Ankara, Turkey; ²Ankara Training and Research Hospital, Ministry of Health, 1st Clinic of Urology, Ankara, Turkey

Introduction and Objectives: To assess the efficiency of the male sling operations in male urinary incontinence cases.

Material and Methods: A total 21 patients who had undergone male sling operation with urinary incontinence between January 2004 and April 2008 were enrolled to the study. Etiologic factors were radical prostatectomy in 14, TUR prostatectomy in 4, transvesical prostatectomy in 2 and traumatic urethral rupture in 1 patient. Bone sling and suprapubic sling techniques were performed to 13 and 8 patients, respectively. As sling material, we used prolene mesh in 20 patients and rectus fascial graft in 1 patient who had undergone suprapubic sling technique. In postoperative follow-up daily pad number, uroflowmetry, postvoiding residual urine volume were assessed and UCLA/RAND examination system was used to determine the patients' satisfaction.

Results: All patients were asked to urinate in the postoperative second day. All patients who had undergone bone sling operation urinated easily, but in 2 patients who had undergone suprapubic sling procedure acute urinary retention developed. These two patients urinated easily after the suprapubic sutures were loosened. Complete urinary continence was achieved in 17 patients (81%), whereas minimal urinary incontinence was observed in 4 patients (19%), postoperatively. The cure rates at third month and at first year follow-up were 72.7% and 66.7%, respectively. According to UCLA/RAND examination system 66.7% of the patients were satisfied with the operations, whereas 33.3% of them were not.

Conclusions: According to our clinical experiences, male sling operation seems to be a very effective surgical procedure for the male urinary incontinence and it has high success rates especially in the mild and moderate urinary incontinence cases.

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Associations between lower urinary tract symptoms and semen quality in ageing male

K. Ausmees¹*, M. Žarkovski², G. Timberg³, P. Korrovits¹, M. Punab¹. ¹Tartu University Hospital, Andrology Centre, Tartu, Estonia; ²Tartu University Hospital, Clinic of Surgery, Tartu, Estonia; ³West-Tallinn Central Hospital, Clinic of Surgery, Tallinn, Estonia

Introduction and Objectives: Men's increasing mean life expectancy accompanied by a trend towards higher paternal age and developments in assisted reproduction have raised interesting age-related aspects of male fertility. Several studies have recently indicated that lower urinary tract symptoms may potentially increase a risk of reduced fertility in men. The aim of this study was to investigate the relationships between semen quality and lower urinary tract symptoms (LUTS) in ageing male.

Material and Methods: A total of 210 men (aged 45-67) were investigated in this study. Clinical examination included body composition, prostate screening, genital pathologies and testicular size measured by orchidometer. All subjects filled out the International Prostate Symptom Score (I-PSS) and Chronic Prostatitis Symptom Index (NIH-CPSI) questionnaires for lower urinary tract and prostatitis-like symptoms. Blood samples were collected for hormonal, biochemical and organ-specific markers. All men were measured for total prostate volume (TPV) by transrectal ultrasonography and for urinary flow rates by uroflowmetry.

Results: The sperm concentration (median 84×10^6 per milliliter for all investigated men) showed a negative correlation with total prostate volume ($r = -0.233$, $p = 0.00292$). The motility of spermatozoa showed a negative correlation with IPPS ($r = -0.181$, $p = 0.0211$), NIH-CPSI pain score ($r = -0.153$, $p = 0.0489$) and us-CRP level in serum ($r = -0.252$, $p = 0.00126$). The volume of ejaculate showed a negative correlation with WBC counts in semen ($r = -0.243$, $p = 0.00182$), with PSA ($r = -0.197$, $p = 0.012$) and us-CRP level in serum ($r = -0.176$, $p = 0.0251$). Testicular size showed a positive correlation with sperm concentration ($r = 0.251$, $p = 0.00126$) and sperm motility rates ($r = 0.169$, $p = 0.0317$).

Conclusions: Our preliminary results suggest that semen pathologies and reduced fertility rates may be associated with LUTS and prostate diseases in ageing male. However, the future research should directly define the relationships between semen quality and LUTS as well as examine the treatment effect of LUTS to fertility rates in ageing male.

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Prevalence of asymptomatic inflammatory prostatitis in ageing male with lower urinary tract symptoms

K. Ausmees¹*, M. Žarkovski², G. Timberg³, P. Korrovits¹, M. Punab¹. ¹Tartu University Hospital, Andrology Centre, Tartu, Estonia; ²Tartu University Hospital, Clinic of Surgery, Tartu, Estonia; ³West-Tallinn Central Hospital, Clinic of Surgery, Tartu, Estonia

Introduction and Objectives: Asymptomatic inflammation as new category of prostatitis is often found during evaluation of other reproductive and prostate disorders. The aim of this study was to determine the prevalence of asymptomatic prostatitis in ageing male with lower urinary tract symptoms (LUTS).

Material and Methods: A total of 132 men (mean age 58.9 ± 6.7 years) with LUTS (mean I-PSS 10.4 ± 6.4) were investigated for white blood count (WBC) in expressed prostatic secretion (EPS) and post-prostatic massage urine specimen. Subjects with any clinical symptoms of inflammation were excluded. Total prostate volume, urinary flow rate and certain organ-specific, hormonal and biochemical markers were measured as well. Subjects