461

Kocjancic E[1], Stecco A[2], Frea B[1], Crivellaro S[1], Chieppa A[2], Carriero A[2]
1. Università del Piemonte Orientale, Clinica Urologica, Novara, Italy, 2. Ospedale Maggiore Della Carità - Università del Piemonte OrientaleSCDU Radiologia

FEMALE URINARY STRESS INCONTINENCE: PERINEAL-US VERUS RETROGRADE CISTOGRAPHY

Hypothesis / aims of study
Aim of our work is to demonstrate that Perineal Ultrasound (PUS) represents a new gold standard technique in the diagnostic imaging of urinary stress incontinence, actually represented by retrograde cistography

Study design, materials and methods
We evaluated 30 patients, between 45 and 69 years, affected by urinary incontinence. 20 of them (66,7%) with previous gynaecologic surgery. 14 with a clinical presentation of urinary stress incontinence, 4 compatible with urge incontinence, 4 with mixed incontinence and 8 asymptomatic. After the stress test, 19 (63%) were continent, 8 (26%) had an urinary leak after prolapse reduction. We measured the bladder neck descent respect to pubo-coccigeal line and sub-pubic line. US examination has been carried out in supine – gynaecologic position, after moderate bladder filling, with a convex 3,5 MHz probe positioned on the vulva. Sagittal dynamic scans were performed. In each phase, strain, rest and minctional, the distance between posterior margin of the sinphysis pubis and the central portion of the urethra has been evaluated; we evaluated also the urethral axis inclination angle, found between the urethral axis and the major axis of the sinphysis pubis. Statistical comparison between these two radiologic methods and the stress test (gold standard) was conducted. We calculated the Odd Ratio for each radiologic method, to find which of the two methods is more efficacy in evaluating the hyper mobility of the pelvic floor.

Results
PUS examinations resulted easy to perform, well tolerated by patients and not time consuming (20 minutes mean). We found that urethro-pubic distance at the PUS evaluation is the measure which shows the higher significancy of the correlation between urethral hyper mobility and urinary incontinence. This is confirmed from O.R. (4,571) calculation, showing the statistical power of this method, and from 95% confidence interval (2.95 – 6,192) has the best correlation.

Interpretation of results
The clinical data and statistical analysis confirmed that there was a good correlation between urethral hyper mobility measured by PUS and urinary incontinence.

Concluding message
Our work demonstrates that PUS has a better intrinsic diagnostic efficacy in evaluating the pelvic floor, so having raquisites to become the new gold standard radiologic method for incontinent patients.