Abstract

Summary.- OBJECTIVES: To evaluate the clinical and urodynamic features of a series of women with post void residual urine (disbalanced voiding) and various degrees of associated cystocele. METHODS: 119 female patients were studied by clinical evaluation, urodynamics, and imaging tests (VCUG). All patients underwent history and genitourological examination (evaluating cystoceles from grade 0 to 3), neuro-urological examination, and complete urodynamic study. Fifty patients (42%) underwent radiological studies of the upper urinary tract. Disbalanced voiding was defined as existence of post void residual greater than 20% of the voided volume. Urethral resistance was measured by URA. Structural obstruction was characterized by PURR (CHESS classification). Functional obstruction was studied by DURR and perineal EMG (associated with flowmetry). Detrusor contractile power was evaluated by W max, W 80-20, and duration of contraction. Urodynamic terminology and measurements complied with the International Continence Society (ICS) standards. Statistical significance was established at 0.05. Statistical analysis was done by Student’s t for quantitative variables, and Pearson’s chi-square for non parametric variables. RESULTS: 119 patients were enrolled. Mean age was 55.84 yr. (range 15-87). Regarding post void residual (114 valid uroflowmetry studies), 25 patients were classified as voiding disbalance (21.9%) and 89 as balanced (74.8%). Regarding clinical data, there were only significant differences between groups in voiding difficulty. For uroflowmetry, only the percentile of the Maximal flow (Qmax) showed significant differences (35 vs. 22 for balanced/disbalanced voiding respectively, p = 0.02). Pressure/volume studies demonstrated bladder hyperactivity in 16 cases (64%) in the group of disbalanced voiding and 31 cases (34.8%) in the normal voiding group (p = 0.008), which presented associated with increased urethral resistance (URA) (p = 0.01). In the pressure/flow study, there were significant differences in the URA (14.7 vs. 25.3, p = 0.001). There were statistically significant differences in the degree of constrictive (0.5 vs. 1.1, p = 0.009) and compressive (0.5 vs. 1.1; p = 0.04) obstruction (Chess classification). There were not significant differences in the analysis of isometric contractility (Wmax), but there were in the isotonic contractility (W80-20) and detrusor contraction duration. These latter differences presented significant association with the degree of cystocele. DURR and perineal EMG data did not show differences between groups. Radiological abnormalities of urethral morphology were statistically different between groups, presenting in 10% of the patients with normal voiding and 50% of the disbalanced voiding group, although there was not statistical association with obstruction (p = 0.64). The existence of cystocele did not show a statistical association with these variables either. CONCLUSIONS: Disbalanced voiding appeared with organic obstruction of the lower
urinary tract (constrictive most significantly), as well as detrusor abnormal contractility, but whereas the first was not significantly associated with presence and grade of cystocele, the second showed such association.

Keywords
Cystocele, Post void residual, Urodynamics