Hypothesis / Aim of the Study

A large post void residual urine (PVR<100ml) and an abnormal uroflowmetry has been described in 15-20% of female patients complaining Stress or Mixed Urinary Incontinence (SUI, MUI) (1). Despite little evidence in literature that complete urodynamic studies can be considered predictive of surgery outcome, they are still recommended in the preoperative assessment, particularly when a voiding dysfunction is suspected. (2). According to the ICS statement, the non-invasive uroflowmetry (NIF) reports do not permit a urodynamic diagnosis. The aim of our study was to evaluate the correspondence of the non-invasive flowmetry (NIF) diagnosis versus the diagnosis based on the results of the pressure-flow study (PFS) and to detect a relationship between the uroflowmetric parameters obtained with NIF, the same parameters obtained with invasive PFS and a large post void residual.

Study design, Materials and Methods

We carried out an accurate retrospective analysis of urodynamic data, collected from January 2015 to December 2016 and regarding 525 examination (2015) 24:237-244). Our data confirmed the role of the Liverpool Nomogram and of the Post Void Residual Urine as indicators of Voiding Dysfunction and should therefore be paired to an invasive urodynamic study. For this purpose, Pressure Flow Studies remain th

Results

The mean age of the entire population was 61.7 yrs while the mean age in the subgroups resulted as follows: DU 63.5±14.4 yrs, BOO 56.6±15 yrs and DU+BOO 63.6±13.1 yrs. According to the UDS, the sample distribution resulted as following: 26/49 (53%) had an UDS of Detrusor Underactivity (CC), while the mean age in the subgroups resulted as follows: DU 63.5±14.4 yrs, BOO 56.6±15 yrs, DU+BOO 63.6±13.1 yrs. According to the UDS, the sample distribution resulted as following: 26/49 (53%) had an UDS of Detrusor Underactivity (CC), while the mean age in the subgroups resulted as follows: DU 63.5±14.4 yrs, BOO 56.6±15 yrs, DU+BOO 63.6±13.1 yrs. According to the UDS, the sample distribution resulted as following: 26/49 (53%) had an UDS of Detrusor Underactivity (CC). Non invasive uroflowmetry (NIF) reports do not permit a urodynamic diagnosis. The aim of our study was to evaluate the correspondence of the non-invasive flowmetry (NIF) diagnosis versus the diagnosis based on the results of the pressure-flow study (PFS) and to detect a relationship between the uroflowmetric parameters obtained with NIF, the same parameters obtained with invasive PFS and a large post void residual.

Interpretation of Results

Only less than half of the women with a diagnosis of obstructed micturition according to the NIF data processed with the Liverpooo nomogram had this finding confirmed by the PFS. The analysis of the distribution of the parameters showed a wide dispersion, as observed in literature (3). In accordance with Mueller’s study (3), the difference between NIF Q max and PFS Q max in our sample is strictly linked to the Voided Volume and the NIF Q max values is suggestive of a correlation between NIF and PFS records in women with a diagnosis of obstructed micturition.

Concluding Message

Our data confirmed the role of the Liverpool Nomogram and of the Post Void Residual Urine as indicators of Voiding Dysfunction in women with clinical diagnosis of uncomplicated Stress Urinary Incontinence. However, the Liverpoo nomogram alone results not sufficiently reliable in characterising voiding dysfunction and should therefore be paired to an invasive urodynamic study. For this purpose, Pressure Flow Studies remain the principal diagnostic instrument even in female patients. The statistical analysis performed on the T-Q max values is suggestive of a correlation between NIF and PFS records in women with a diagnosis of obstructed micturition, and could be therefore more extensively studied.

References


Disclosures

Funding: None Clinical Trial: No Subjects: HUMAN Ethics not Req'd: It is a retrospective analysis Helsinki: Yes Informed Consent: Yes