

## COUGH STRESS TEST AND URODYNAMICS: DO THEY CORRELATE?

### Aims of study

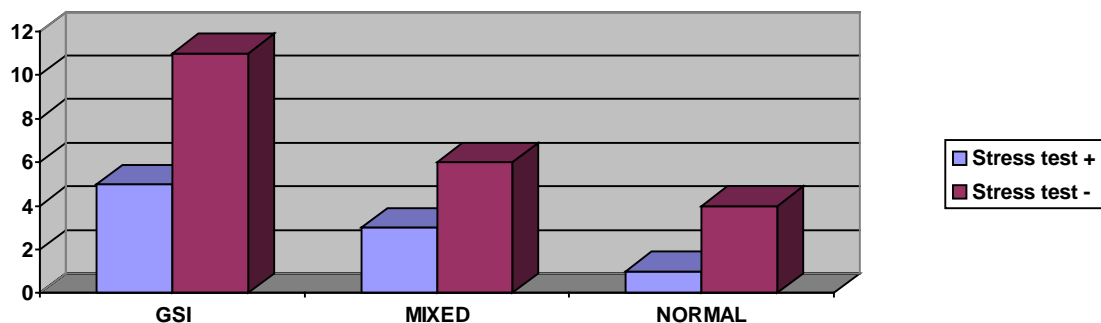
The role of urodynamics in the assessment of women with urinary tract disorders is under debate. In patients complaining of stress urinary incontinence it is generally recommended to perform a complete urodynamic assessment before surgery. However there are still hospitals where the cough stress test is used to objectify the symptom as unique diagnostic procedure. Furthermore many studies in international literature use the cough stress test as an outcome parameter after surgery. The aim of this study was to compare in the same patients urodynamics with the cough stress test findings.

### Methods

Women urinary stress incontinence with or without other urinary symptoms were enrolled in this study. They all had a full urogynaecological history taken, a gynaecological examination performed and, in a random order, a cough stress test and a complete urodynamic test by two blinded operators. The cough stress test consisted of asking the patient to cough at least 5 times in a row with 300 mls in the bladder. The results of the cough stress test and urodynamic diagnosis were then stored onto a dedicated database together with anagraphic data. The results were analysed using SPSS for statistics. The Pearson correlation test was used to assess agreement between the two diagnostic tools.

### Results

Thirty women, with a mean age of 61,5 years ranging from 47 to 76 years, were considered for this study. Twenty-one out of them were at their first urogynaecological consultation, whereas 9 were having a post-surgery follow-up. After urodynamics we objectified urinary leakage in 25 women (16 GSI and 9 mixed incontinence) and observed non conclusive urodynamics in 5 cases resulting in a positive predictive value of 83%. The cough stress was positive in 9 cases giving a 30% positive predictive value. The following graph shows the results of the cough stress test in relation to urodynamic diagnosis.



Graphic 1: Cough stress test in relation to urodynamic diagnosis

Grouping the conclusive urodynamic diagnosis in 25 patients (16 GSI and 9 Mixed), only 8 of them had a positive cough stress test. The Pearson correlation test was finally used to compare the results after urodynamics and after the cough stress test. No correlation was found.

### Conclusions

This study shows that urodynamics is highly superior in detecting urinary stress incontinence in comparison with the cough stress test. Although some studies have already been published on this issue, it is still common to find papers in international literature where the cough stress test is used pre and/or post-operatively in the assessment of women with urinary tract disorders. We believe that this should be banished and our study contributes to draw this conclusion.