

ASSOCIATION BETWEEN VALSALVA AND COUGH LEAK POINT PRESSURE WITH PELVIC ORGAN PROLAPSE IN FEMALE STRESS INCONTINENCE

Hypothesis / aims of study

The relationship between Valsalva leak point pressure (VLPP), cough leak point pressure (CLPP) and pelvic organ prolapse-quantification (POP-Q) score components and stage in women with genuine stress urinary incontinence are evaluated in an effort to identify those with ISD versus urethral hypermobility. We hypothesize that women with negative (-) VLPP and positive (+) CLPP would have a greater degree of urethral hypermobility i.e., higher POP-Q stage.

Study design, materials and methods

Of the 1511 women who underwent video fluorourodynamics between 1997-2003, 88 with evidence of stress urinary incontinence with -VLPP and +CLPP were selected. Women with urodynamic evidence of stress urinary incontinence with +VLPP and +CLPP, and with urodynamic evidence of detrusor instability were excluded.

Results

Average patient age was 58.6 years (range 32-89). 82/88 women had complete POP-Q exams: stage 0 - 21/82(25.61%), stage 1 - 20/82(24.39%), stage 2 - 40/82(48.78%) and stage 3 - 1/82(1.22%). None had +VLPP and -CLPP. Association between POP-Q stage/score components and +CLPP showed no significant difference in mean CLPP among POP-Q stage groups ($p=0.178$) or any score component group ($p=0.42$ to 0.97). The test for linear trend was not significant ($p=0.636$) for any stage group or score component group ($p=0.40$ to 0.93). Association between POP-Q stage/score components and volume at which +CLPP occurred: No significant difference in volume at which +CLPP occurred was observed among any stage group ($p=0.283$) or component group ($p=0.13$ to 0.75). The proportion of patients that leaked at 200cc did not differ significantly among any stage group ($p=0.119$) or component group ($p=0.15$ to 0.60). Association between POP-Q stage/score components and -VLPP showed no significant difference in mean VLPP among any stage group ($p=0.367$) or component group ($p=0.24$ to 0.79).

Interpretation of results

Analysis of women with urodynamic evidence of stress urinary incontinence with -VLPP and +CLPP did not show any significant association with components of the POP-Q score or with POP-Q stage.

Concluding message

Valsalva and cough leak point pressure testing cannot predict whether stress urinary incontinence is due to hypermobility or intrinsic sphincter deficiency.