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Title: SCHAFFER NOMOGRAM TO CHARACTERIZE BLADDER OUTLET OBSTRUCTION IN WOMEN WITH SEVERE GRADE 4 CYSTOCELE

Aims Of Study:

Voiding dysfunction and genitourinary prolapse are common co-existing conditions in women. Bladder outlet obstruction and occult stress urinary incontinence are related to the severity of the cystocele. We performed videourodynamics with and without pessary reduction of grade 4 cystoceles in an effort to further elucidate the effect of the severe prolapse on bladder outlet.

Methods:

We prospectively evaluated 15 women with grade 4 cystoceles and voiding symptoms using multichannel videourodynamics. All patients underwent a focused history and physical examination including a standardized urinary questionnaire. Videourodynamics using medium fill was performed with and without pessary reduction of the cystocele. Urinary free flow (free Qmax), maximum detrusor pressure at maximum flow PdetQmax and videofluoroscopic findings were analyzed before and after pessary reduction of the cystocele. The two parameters: Urinary Fflow Q and detrusor pressure Pdet were plotted on a Schafer nomogram. Valsalva leak point pressure (VLPP) was measured at a bladder capacity of 250 cc. Intrinsic sphincteric deficiency (ISD) was defined as VLPP of less than 70 cm of water.

Results:

Patients ages ranged from 55-70 years (mean 65). 30% of the patients with an unreduced grade 4 cystocele had demonstrable ISD on videourodynamics. Occult ISD was unmasked in an additional 25% of patients after pessary reduction of the severe cystocele. 80% of the women had urodynamic evidence of bladder outlet obstruction (BOO) Schafer Grade 4 or greater/6 with unreduced grade 4 cystocele. 90% of these women had relief of BOO Schafer Grade 3 or less on pessary reduction of the large cystocele.

Conclusions:

Bladder outlet obstruction is nearly the rule in patients with severe cystocele. Although the Schafer nomogram is designed to ascertain the presence BOO in men with lower urinary tract obstructive symptoms, it appears to also be predictive of BOO in women with severe cystocele. Schafer grade shifts to the left (from obstructed to unobstructive pattern) with cystocele reduction. Schafer nomogram may be useful to document bladder outlet obstruction in women with severe cystocele. Furthermore, reduction of severe cystocele unmask ISD in a subgroup of women. These videourodynamic informations may be relevant in planning pelvic floor reconstruction.