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PERINEAL ULTRASONOGRAPIC EVALUATION FOR URINARY PROBLEMS ASSOCIATED WITH GENITAL PROLAPSE IN JAPANESE WOMEN

Aims of Study : To assess urinary problems in women complicated with genital prolapse by perineal ultrasonographic technique

Methods : Lower female urinary tracts were evaluated in women complicated with genital prolapse (n=50), where the complete uterine prolapse were excluded out, and continent control women (n=18) by perineal ultrasonographic technique Perineal ultrasonography was performed with convex-type probe (3.5 MHz) on lithotomy position under full bladder condition and several parameters were measured as follows; posterior vesico-urethral angle (PVU angle) and pubourethral angle (PU angle) on each condition of resting and Valsalva maneuver, mobile distance of internal urethral orifice on condition of Valsalva maneuver and pelvic floor contraction (1,2). All examination were performed under patient's consents.

Results : In control cases, it was observed that PVU angle on resting and Valsalva maneuver ranged in 107 ± 12 (mean ± SD) and 112 ± 18, respectively. Furthermore, PU angle ranged in 105 ± 10 and 110 ± 13 on each condition In the group complicated with genital prolapse, where modest or moderate (third degree) of cystocele were accompanied, 15 out of 50 showed incontinent severely (more than 10 gr in Pad test) including 6 of type III incontinence diagnosed by chain cystography and urodynamic test. 9 out of 15 showed both excessive dilatations of PVU angle (more than 180) and

hypermobility of vesical neck (mobile distance more than 1.5cm), nevertheless 6 of type Ⅲ incontinent cases, where 4 cases were combined type Ⅱ and Ⅲ, showed less. The funneling of internal urethral orifice was observed in 4 out of 6 type Ⅲ incontinent cases. Dilatation of PU angle revealing decent of bladder base showed correlation with dysuria rather than severity of incontinence. Regarding mobility of internal urethral orifice under pelvic contraction, measured in 8 of control cases and 10 of genital prolapse cases, in control cases it was 0.84±0.31 cm and exceeded mobile distance of vesical neck under Valsalva maneuver (0.42 ±0.24 cm). On the other hand, in those where genital prolapse were complicated it was equal or less than that.

Conclusions Genital prolapse often accompanied urinary problems These data exhibit that hypermobility of vesical neck (more than 1.5 cm) cooperating with dilatation of PVU angle (more than 180) by ultrasonography would contribute to severity of incontinence. Moreover, less of these parameters in severity of incontinence might suggest existence of type Ⅲ incontinence as well as funneling of vesical neck. Perineal ultrasonography has several advantages for its convenience and reproducibility. This would contribute to useful evaluation of urinary problem and to selection of surgical procedures in genital prolapse.

Reference

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