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THE ANALYSIS OF VIDEO-URODYNAMIC IN NEUROGENIC AND NON-NEUROGENIC VOIDING DYSFUNCTION

Hypothesis / aims of study

Voiding dysfunction is a common disease in clinical practice, which often caused by nervous system diseases or other non-nervous system lesions who controlled voiding. A long period of voiding dysfunction can cause Upper urinary tract damage, and even threatened the lives of patients. Conventional urodynamics by pressure - flow can have a judgment with voiding dysfunction preliminary, but not to understand the morphology and functional changes of the lower urinary tract. Video urodynamics (video-urodynamics, VUDS) recorded conventional urodynamic parameters also given a synchronization perspective at the same time. More accurate understanding of potential pathological changes of the lower urinary tract, more directly reflect the dynamic changes in the urinary tract, and thus, more accurately reveal the reasons for lower urinary tract dysfunction.

Study design, materials and methods

A total of 45 patients who underwent X-ray video urodynamics from April to October 2011 were analyzed retrospectively. 23 patients (15 male, 8 female) with neurogenic voiding dysfunction (NVD), mean age 49.57 ± 17.93 (range from 20~81) years and 22 patients (14 male and 8 female) with non-neurogenic voiding dysfunction (NNVD), mean age 58.59 ± 13.33 (range from 21~78) years. Free flow rate, pressure--flow rate parameters, bladder morphology, the occurrence of upper urinary tract reflux, and the abnormal open of bladder neck during storage phase were recorded and analyzed.

Results

Patients with NVD had higher incidence of abnormal bladder morphology than NNVD patients (78% versus 27%). The bladder compliance (BC) of the NVD group was significantly lower (24.18 ± 22.45 ml/cmH₂O) than the NNVD group (48.12 ± 31.48 ml/cmH₂O), whereas, the post void residual were more often found in the NVD group [(203.33 ± 221.98) ml versus (50.00 ± 100.50) ml], and detrusor areflexia was also higher in NVD (64% versus 14%) than NNVD group. Both groups seemed to have similar incidence of vesical-ureteral reflux (21% versus 4.5%) and abnormal bladder neck open (30% versus 14%), $P > 0.05$.

Interpretation of results

In this study, by comparing the video urodynamic performance between NVD and NNVD group finding that there are significant differences on them. Mainly as NVD patients with the high incidence of bladder form disorders and the voiding acontractile detrusor; poor compliance; existence on the problem of detrusor leak point pressure and relatively safe bladder capacity.

Concluding message

Neurogenic and non-neurogenic voiding dysfunction showed different video-urodynamics changes, indicating it could be used to different the NVD from that of NNVD.

Disclosures

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