

CAN CYSTOURETHROGRAPHY PREDICT THE OUTCOME OF SUBURETHRAL SLING PROCEDURE FOR THE TREATMENT OF STRESS URINARY INCONTINENCE?

Hypothesis / aims of study

Cystourethrography (CUG) is a radiological method used to evaluate the anatomic figures of bladder and urethra as well as to measure the degree of urethral mobility functionally. The aim of this study was to evaluate the clinical outcomes, according to urethrovesical junction (UVJ) descent measured by CUG, of suburethral sling procedure for the treatment of stress urinary incontinence.

Study design, materials and methods

In this retrospective study, 84 women with stress urinary incontinence who underwent the Monarc[®] suburethral sling procedure between March 2004 and December 2005 were included in this study. Preoperative evaluation included complete history, physical examination, urinalysis, voiding diary, 1-hour pad test, urodynamic study and CUG. None of the patients presented the following exclusion criteria: post-void residual volume > 100cc, detrusor overactivity or acontractility, contraindication to anesthesia, pregnancy, neurological pathology, or active urinary or vaginal infection. The position of UVJ was evaluated by CUG at rest and during voiding, and the length of UVJ descent caused by voiding was measured. The patients were divided into four subgroups according to the length of UVJ descent (group A; < 10, B; 11-20, C; 21-30, D; > 30mm). Uniform surgical procedures were performed by single surgeon regardless of the length of UVJ descent. Outpatient follow-up was performed at 1 and 6 months, and every 6 months thereafter. Postoperative continence statuses were classified into three groups (completely dry, improved but sometimes wet, not improved). Postoperative satisfaction score was measured by visual analogue scale (from 0 to 10; 0 score means highest satisfaction level). Postoperative satisfaction score and continence status were analyzed according to the UVJ descent. Analyses were conducted using Chi-square and ANOVA (SPSS 13.0).

Results

The patients' mean age was 48.8 years (26-77 years). The mean follow-up period was 12.4 months (3-24 months). Patients' characteristics and urodynamic results were similar in each groups divided by the length of UVJ descent. The numbers of patients were 6 in group A, 36 in group B, 27 in group C and 15 in group D. Of the 84 patients, 69 (82.1%) patients were 'completely dry', 12 (14.3%) patients were 'improved but sometimes wet' and 3 (3.4%) patients were 'not improved'. One of 3 'not improved' patients belonged to group A, and the other two belonged to group B. Mean postoperative satisfaction score measured by visual analogue scale were 0.5 in group A (0-8), 1.5 in group B (0-9), 0.89 in group C (0-3) and 0.8 in group D (0-3). Postoperative complications such as de novo urgency (2 patients), bladder outlet obstruction (2 patients) and vaginal erosion (1 patient) occurred infrequently.

Interpretation of results

The degree of UVJ descent and postoperative continence status showed no significant correlation ($p=0.328$). The degree of UVJ descent and postoperative satisfaction score measured by visual analogue scale showed no significant correlation either ($p=0.345$).

Concluding message

Although CUG may be a useful tool for evaluating a dynamic change of bladder and urethra, it cannot predict the outcome of suburethral sling procedure for the treatment of stress urinary incontinence.

FUNDING: NONE

DISCLOSURES: NONE

CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study did not need ethical approval because an approval is not necessary in my country for this kind of retrospective clinical research not involved in any commercial interest but followed the Declaration of Helsinki informed consent was obtained from the patients.