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THE USING OF TRANSVAGINAL ULTRASOUND OF URETHROVESICAL SEGMENT IN DIFFERENT TYPES OF STRESS INCONTINENCE DIAGNOSTICS

At present the different types of stress incontinence diagnostics and treatment are the main topics of urogynecology. Traditional methods of clinical, urodynamic and endoscopic exams have been completed by non-invasive 2D and 3D ultrasound.

Objective. To estimate transvaginal ultrasound value in different types of stress incontinence diagnostics and treatment.

Materials and methods. 29 patients from 36 to 82 y.o. with stress incontinence were examined in Operative Gynecology Department of D.O. Ott Institute.

To derminate the type of stress incontinence and its severity the echography of urethrovesical segment was performed in all observed women using transvaginal probe Voluson-730 expert (GE), (Chechneva M.A., 2000).

The measurements of basic angles were performed in patients in supine position at rest and on Valsalva. The angle α was measured as an angle between proximal urethra and conventional longitudinal axis of the body. The angle β was retrovesical (or posterior urethrovesical) angle between proximal urethra and trigone on the level of the bladder neck. On Valsalva, the proximal urethra may be seen to rotate in a posterior-inferior direction. The changing of angle α expressed the degree of its rotation. Also the cystocele presence were noted. When the funneling of the internal urethral meatus were observed the width of proximal urethra was measured with following dynamic 3D reconstruction. After that the ratio of urethra transversal section square and urethral sphincter width were calculated.

Results. The mean values of α and β angles at rest in observed patients were $31,6^\circ$ и $112,7^\circ$, accordingly. In 8 patients the ultrasound signs of urethra hypermobility were found (stress incontinence, type II) – the angle α rotation was more than 20° . In 9 women the signs of urethral sphincter insufficiency took place (stress incontinence, type III), when the ratio of urethra transversal section square and urethral sphincter width exceeded 0,74. In three cases the combination of stress incontinence of both (II and III) types was revealed. In the rest 9 women the ultrasound signs of urethrovesical interrelation disturbances were not found.

Based on ultrasound data 17 patients were operated. In the II type of stress incontinence the antistress surgery was performed (TVT and TVT-O). In the III type of stress incontinence the urethropexy with IVS, Gyne-Mesh and Gyne-Mesh soft plastic surgery of vaginal walls were carried out. In all patient the surgery was added by the colpoperineolevatoroplastics.

Ultrasound control of urethrovesical interrelation dynamic and prolen transplantants position were performed in the early postoperative period (on 3d and 10th day). The positive dynamic were registrated in all operated patients.

Conclusion. The using of transvaginal 2D and 3D echography in examination of patients with stress incontinence gives the possibility to estimate objectively the urethrovesical anatomy and optimise their treatment. At present time the long-term results analysis is fulfilling.

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TRANSPOSITION OF DISTAL URETHRA IN OPERATIVE TREATMENT OF RECURRENT URINARY TRACT INFECTION IN FEMALE PATIENTS

Aims & Objectives: recurrent urinary tract infection deals with anatomical variations of meatus position in more than 10% of patients. It can lead to retrograde permeation of bacteria during sexual intercourse. Transposition of distal urethra can significantly improve the symptoms of urinary tract infection in such group of patients.

Material & Methods. During the period from 1998 to 2005, 224 female patients suffering from recurrent urinary tract infections after sexual intercourse were undergone transposition of distal urethra (mean age 27, 3 years). The indications for the operative treatment were urethral hypermobility, uselessness of the antimicrobial therapy and connection with sexual activity.

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Results. Positive results were subjectively in 175 patients (78, 1%). Episodes of urinary tract infection reduced in 179 patients (79, 9%). Dispareunia reduced in 190 patients (84,8%) during the period of 12 month. Improving of the quality of sexual life were detected in 204 (91,1%) patients.

Conclusions. Surgical transposition of the distal part of urethra can lead to the significant improving of symptoms of the urinary tract infection after sexual intercourse in female patients. Because of its low invasiveness this method can use in almost all patients with urinary tract infection after sexual intercourse.