Dynamic transperineal ultrasound in the diagnosis of female lower urinary symptoms: our experience.

INTRODUCTION

In presence of lower urinary tract symptoms in women with pelvic organs prolapse the diagnosis is based on a detailed case history record and a careful vaginal examination. A complete urodynamic assessment is not always mandatory, but can be helpful to define the prognosis and inform the patient about her vesicosphincteric function. On imaging side, urethrography has traditionally been used in the evaluation of cystocele and urethral ipermobility but provides only intraluminal information. Ultrasonography is advantageous in that; it does not involve ionizing radiation and has the capacity to help detect a cystocele with or without urethral ipermobility, without contrast agent filling, less discomfort for the patient and of course it is much cheaper.
Aim of this study is to evaluate, in our experience, the usefullnes and feasibility of perineal ultrasound, in the diagnosis of the causes of female lower urinary tract symptoms associated with pelvic organs prolapse.

MATERIALI E METODI

From June 2006 to December 2010, 95 women between the age of 25 and 83 years, underwent a traslabial ultrasound for urinary incontinence (75) or other lower urinary symptoms (20), clinically associated with pelvic organs prolapse. All of them were examinated by an uro-gynecolgist, to determine the grade of pelvic organ prolapse and then, the same doctor performed a translabial ultrasound to complete the diagnosis.
We use a simple 2-dimensional (2D) B-mode ultrasound system with a 3 to 6 Mhz curved array transducer on perineum.

RISULTATI

In 66 cases (70%) perineal ultrasound confirmed the clinical vaginal examination, in 29 cases added important informations which could have interfered with a correct treatment of symptms. In one case ultrasound made possible the diagnosis of urethral diverticulum not evident to clinical examination. In 4 cases it has been possible to highlight the uncorrect position of surgical mesh. In 5 cases ultrasound evidenced a cystocele with intact retrovescical angle

associated with voiding disfuction. In 4 cases ultrasound evidenced a cystourethrocele and in 4 cases an urethral ipermobility which was not clear to clinical examination. In 2 cases ultrasound graphically showed the effects of anteriorized cervix in women with an enlarged, retroverted uterus and voiding disfuction. In 9 cases ultrasound clarified the posterior compartment prolapse (rectocele, enterocele or rectal intussusception).

CONCLUSIONI

Clinical examination is limited to grading pelvic organs prolapse. In our experience translabial ultrasound has been a simple, not expensive and not invasive test which simplify the differential diagnosis between a cystourethrocele associated with urodynamic stress incontinence and a cystocele with intact retrovescicale angle, generally associated with voiding disfuction which could hide stress incontinence. Ultrasound could prove the presence of urethral diverticula that could be missed on clinical examination. Traslabial ultrasound provides immediate objective confirmation of clinical examination and it could easly enter in clinical practice before pelvic recostrutive surgery.