Our Changing Strategies on Bladder Neck Suspension Operations

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With currently changing strategies, we retrospectively reviewed our operative results in female stress incontinence to find a suitable solution to correct both urethral hypermobility and intrinsic sphincter dysfunction with reasonable success rates.

No Incision Bladder Neck Suspension (NIBNS), Modified Four Corner Bladder Neck Suspension (MFCBNS) and in situ vaginal wall sling operation with bone fixation were performed on 24, 26, 25 patients from 1992 to 1994, 1994 to 1996, 1996 to 1998, respectively, with pre- and postoperative evaluations and success rate determinations.

Cure rates for NIBNS operations were 90.47, 72.2 and 50 per cent after 6 months, 2 years and 5 years, respectively. For MFCBNS operations cure rates were 96 and 75 per cent after 6 months and 2 years; for in situ vaginal wall sling by bone fixation the rates were 100 per cent in primary cases and 80 per cent in secondary cases after one year of follow-up. After two years the cure rate was 88.8 per cent in primary cases.

By fixation and elevation of the urethrovesical junction and by external compression from under the urethra, in situ vaginal wall sling by bone fixation offers a better solution to urethral hypermobility and intrinsic sphincter dysfunction for urinary stress incontinence.

Introduction

Several operative techniques on bladder neck suspension have been reported as being successful in the treatment of female stress incontinence but no single operation has been accepted as the most reliable method [1, 2].

The statement that the type of stress incontinence is very important in the selection of operative technique for hypermobility (types 1 and 2) and intrinsic sphincter deficiency (type 3) has recently changed with the sling operations becoming popular both in type 2 and 3 incontinence [3, 4].

In this study we retrospectively reviewed women with stress urinary incontinence and discussed our changing strategies from no incision bladder neck suspension operations (NIBNS) and modified four corner bladder neck suspension (MFCBNS) to in situ vaginal wall sling operation by bone fixation for a five-year period.
Severity of incontinence is graded as mild: urine loss only on strenuous activities; moderate: urine loss on moderately strenuous activities or severe; total incontinence or urine loss with positional changes.

Material and methods

NIBNS, MFLBNS and in situ vaginal wall sling operations were performed on 24, 26 and 25 patients from 1992 to 1994, 1994 to 1996 and 1996 to 1998, respectively. A pelvic examination to assess urethral hypermobility with Q tip and Bonney tests, cystoscopy and multichannel water cystometry were included in the preoperative evaluation. Patients with intrinsic sphincter deficiency have been correctly diagnosed by using abdominal Valsalva leak point pressure measurements during the cystometric evaluation in all patients with stress incontinence since 1995. Values less than 65 cm water were accepted as intrinsic sphincter deficiency. Postoperative questionnaire included a patient satisfaction rating on a scale. It also included whether the patients would retrospectively choose to undergo the procedure again.

Clinical follow-up evaluations included physical examination for assessment of vaginal wall prolapse and testing for persistent or recurrent urinary stress incontinence by urodynamics in patients who were accepted as failures. Successful resolution of stress incontinence means no reported or observed episodes of stress related urinary loss. Overall failures were defined as women with persistent stress incontinence refractory to anticholinergics or de novo urge incontinence refractory to anticholinergics postoperatively and acquired intrinsic sphincter deficiency.

Surgical techniques

(a) NIBNS group

This operation techniques was performed on 24 patients with urethral hypermobility and minimal cystocele from 1992 to 1994. Mean age was 58.2±3.2 years. Full thickness vaginal sutures (No. 1 polypropylene) which were placed on either side of the urethrovesical junction in a coil fashion were used with no vaginal and suprapubic incision. These sutures were transferred to the suprapubic region by using bended Kischer needles and fixed on the rectus fascia in a cross fashion. Urinary drainage was accomplished via a Foley catheter.

(b) We performed MFCBNS on 26 patients diagnosed as type 2 incontinence with moderate cystocele without taking intrinsic sphincter dysfunction into consideration. Mean age was 62.1±3.2. Following two lateral incisions and dissections from the bladder neck to the cardinal ligament, distal sutures were passed from the urethropelvic ligament in each side of midurethral region