

ENDOSCOPIC MESH BLADDER NECK SUSPENSION –MORBIDITY AND SUBJECTIVE OUTCOME

Aims of Study

In theory, endoscopic bladder neck suspension should combine the advantages of 'keyhole surgery' with a similar success rate to open bladder neck suspension procedures (Burch Colposuspension). Lower postoperative morbidity, shorter hospital stay and a quicker return to daily activities have been described (1). We assessed endoscopic bladder neck suspension in respect of operating times, complications, hospital stay and outcome and compared these parameters to the standard open procedure performed at this hospital. We assessed the effect of the treatment on the 'Quality of Life' via the incontinence impact scores of the King's Health Questionnaire (KHQ) in the last 50 patients (subjective assessment).

Methods

112 women underwent endoscopic bladder neck suspension between 15/11/1997 and 31/10/2001. The treatment was offered to patients who failed to improve after conservative management of genuine stress incontinence. All but three women had preoperative urodynamic assessment.

A technique using the extra-peritoneal approach into the space of Retzius, securing a 4.2 x 2.4 cm prolene mesh with Tyco[®] tackers to elevate the paravaginal fascia to the ipsilateral ileoinguinal ligament, was employed. Self-retaining catheters were routinely removed at the end of the operation in the last 30 day-case patients. All women were given antibiotic prophylaxis.

254 case notes of women undergoing open bladder neck suspension between 07/01/1991 and 13/10/1999 were reviewed. Bladder neck elevation was achieved by use of the traditional suture technique in 172 cases, thereafter the operating technique was changed to the same material used in the endoscopic procedures (82 patients).

Data was collected retrospectively from the patient's case notes. Recently we introduced the use of the King's Health Questionnaire (KHQ). Questionnaires were completed at the time of the preoperative assessment by the last 50 patients. Further King's Health Questionnaires were posted to the patients six months postoperatively. Data were analyzed using SPSS (Chicago, USA) and Spearman's correlation coefficients.

Results

In the endoscopic bladder neck suspension group the mean age was 54.4 years range (34- 81 years). The mean weight was 67 kg (range 54- 91 kg). The mean duration of the symptoms was 5.5 years (range 18 months- 21 years). 18 women had previous lower abdominal surgery (11 hysterectomy, 3 laparotomy, 2 caesarean section). 30 patients had previous incontinence surgery (1 Stamey's procedure, 4 pelvic floor repair with bladder neck buttressing, 25 Macroplastique implantation) and 2 women had had a vaginal hysterectomy. All patients but 1 (detrusor instability) had genuine stress incontinence (GSI), in 6 patients coexisting detrusor instability was diagnosed preoperatively.

The mean operative time was 48 minutes (range 30- 73 min). Intraoperative complications included 7 cases (6.2%) which were converted to open Burch colposuspension, 1 case of intraoperative bleeding, which was managed conservatively, 2 cases of haematuria and 1 vaginal tear. The conversion to an open procedure was necessary in 2 cases of bladder perforation and 4 cases of entering the peritoneum inadvertently. Adequate access was not achieved in 2 patients because of scar tissue.

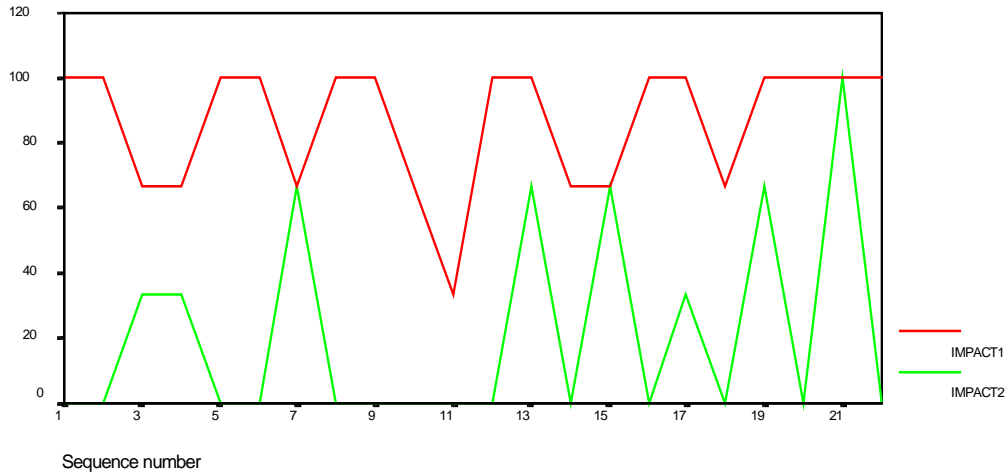
Of 55 women, who were admitted on the day case unit, 24 (44%) were discharged on the same day. Of 69 cases admitted to the gynaecology ward, 48% were discharged on the next day. The mean hospital stay was 2 days. 21% of all patients had treatment as daycases. The incidence of postoperative voiding problems was 4%. Table 1 shows a comparison between open and endoscopic procedures in hospital stay and postoperative parameters.

77% of scores in the incontinence impact domain of 22 patients, who completed six months follow-up, were in the 'not at all' (59%) or 'a little' (18%) group. Preoperatively all scores were in the 'a lot' group (Figure 1).

Table 1

	Open Bladder Neck Suspension	Endoscopic Bladder Neck Suspension
Hospital Stay (mean)	7 days (range 4-13 days)	2 days (range 2-7 days)
Catheterization (mean)	3 days	24 hours
Voiding Problems	20%	4%
Urinary Tract Infections	13%	3%

Figure 1. Figure 1. Postoperative Incontinence Impact Scores (KIQ)



Conclusions

Our data shows that endoscopic bladder neck suspension has significantly less hospital stay and postoperative complications compared to the open procedure. The subjective success rate of 77% as per incontinence impact scores equals the previously demonstrated subjective success rate of 77% for open Burch Colposuspension. Complete KHQ data of 50 patients will be available for the meeting.