795

Bhal K[1], Ddarbhamulla A[1], Davies J[1]
1. *CARDIFF & VALE uLHB*

IS THERE A ROLE FOR ROUTINE PREOPERATIVE CLEAN INTERMITTENT SELF-CATHETERIZATION (CISC) TRAINING TO PATIENTS PRIOR TO MID-URETHRAL TAPE INSERTION?

Hypothesis / aims of study

Post operative voiding dysfunction is a well recognized complication of mid-urethral tape insertion. Majority of surgeons follow a conservative approach using an indwelling urethral or suprapubic catheter or by clean self intermittent catheterization (CISC). The purpose of this study was to evaluate our practice of routine preoperative clean intermittent CISC training to patients prior to mid-urethral tape insertion and its value in the management of post operative voiding dysfunction.

Study design, materials and methods

A retrospective analysis of consecutive series of women who underwent mid urethral tape insertion over a five year period was carried out as a part of service evaluation. All patients had a pre operative urodynamic evaluation confirming the diagnosis of stress incontinence. Patients with concomitant detrusor overactivity were given anticholinergic medication first and only those demonstrating objective improvement in detrusor overactivity on urodynamics were selected for mid-urethral tape insertion.

All patients were seen 1-2 weeks before the operation by a urogynaecology nurse specialist for preoperative counselling and CISC training. Ability to perform the procedure independently and correctly at least twice was considered as satisfactory training. After successful training, a box of suitable catheters was prescribed by a letter to the General Practitioner to be used postoperatively if necessary.

Procedures were carried out under regional or general anaesthesia majority of which as day cases. All patients had a monofilament polypropylene tape inserted by a retropubic or transobturator approach. Tape was adequately adjusted ensuring that there is no tension by placing a curved scissors between the urethra and the tape. All patients had a check cystoscopy to exclude damage to bladder and urethra. Prophylactic antibiotics were administered at the time of the procedure. Patients were encouraged to void spontaneously on the ward following the procedure and residual volume checked with a bladder scan.

Patients with a significant residual volume of over 100mls had bladder scan repeated for residual volume of urine after second and third voids. Women with persistently increased residual volume of over 100 mls were instructed to carry out CISC and allowed home after satisfactory demonstration of the technique by the patients. Women were instructed to perform CISC 2-4 times daily depending on the residual volume. Patients were contacted on third post op day by nurse practitioner and further management advised accordingly. Patients were advised to report symptoms of urinary tract infection if any, during this period.

Results

A total of 236 consecutive women who underwent midurethral tape procedure for stress incontinence during 2004-2009. Ninety seven percent of patients (n=229) had urodynamically proven stress incontinence while the remaining patients (n=7; 2.9%) had associated detrusor over activity with objective improvement on anticholinergic medication as demonstrated by repeat urodynamics preoperatively. Four percent (n=9) had previous continence or prolapse surgery.

All the patients attended for preoperative CISC training and the majority (n=229; 97%) were successfully trained to perform the procedure. The average time taken for CISC training was 28 minutes (range – 16-44 minutes). Of the patients who failed to perform the technique, two thirds (n=4; 67%) had a BMI over 40 and the remainder (n=2; 33%) had restricted hand mobility. One patient declined to try the technique.

Postoperatively, 95% (n=224) managed to void spontaneously with normal residual volume. Twelve patients had high residual volume of over 100mls (5%) confirmed on repeat testing and needed to perform CISC. In the majority voiding function improved in (n=8; 67%) within two weeks. Four patients had persistent voiding dysfunction and tape division was carried out in 3 women for this reason (1.3%; 3/236). One patient opted for long term CISC.

Ten patients (4.2%) developed urinary tract infection that needed treatment with antibiotics.

Interpretation of results

Vast majority of the patients in our series were willing to learn and were successfully trained to perform the technique of CISC preoperatively. The average time needed for training was less than 30 minutes. Voiding dysfunction rates in our series are similar to those reported in other studies (ref.1) and voiding dysfunction improved in over 60% of the patients within two weeks.

Patients reported no problems in performing CISC and recording residual volume of urine postoperatively. Majority were able to follow the instructions given to them over the phone regarding further management which reduced the number of post operative visits to the hospital.

Concluding message

The practice of urinary catheterization for post operative voiding dysfunction following mid urethral tape is variable across the specialty of Urogynaecology. The three standard methods including use of an indwelling urethral catheter, suprapubic catheter and clean self intermittent catheterization (CISC) have their advantages and disadvantages. Supra pubic catheterization needs

expertise at insertion and carries significant risk of trauma during the procedure (ref 2). Clean intermittent self catheterization (CISC) is reported to be associated with low infection rates compared to an indwelling urethral catheter (ref 3).

In our experience, clean self intermittent catheterization (CISC) a simple, safe and reproducible technique which gives patients more independence in managing their voiding problem. The limitation of this practice is the need for patient training which is best achieved pre operatively when the patients are better motivated.

References

1. RCOG Green - top guidelines 35 Urodynamic Stress Incontinence, Surgical Treatment
2. Ahluwalia RS. Johal N. Kouriefs C. Kooiman G. Montgomery BS. Plail RO The surgical risk of suprapubic catheter insertion and long-term sequelae. Annals of the Royal College of Surgeons of England. 88(2):210-3, 2006 Mar.
3. Niel-Weise BS. van den Broek PJ Urinary catheter policies for short-term bladder drainage in adults. Cochrane Database of Systematic Reviews. (3):CD004203, 2005

Specify source of funding or grant	**NONE**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**THIS WAS A RETROSPECTIVE STUDY OF CURRENT CLINICAL PRACTICE IN OUR INSTITUTION**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**