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HOW IS TVT DONE IN THE UK

Aims of study

The tension free vaginal tape (TVT - Gynecare) procedure has revolutionised the treatment of urodynamic stress incontinence. TVT accounts for approximately a third of incontinence procedures in the UK and several studies have testified to its success and low morbidity. However there is very little information as to how these procedures are carried out and whether they differ from the original description by Ulmsten (1). This study was therefore carried out to ascertain how incontinence surgeons in the UK carry out TVT.

Methods

Questionnaires were sent to 446 surgeons listed on the Gynecare database and thought to be carrying out TVT. The respondents were asked to identify themselves as gynaecologists or urologists and the institution in which they worked. They were asked approximately how many TVT procedures they carried out annually, whether they carried out preoperative urodynamics and whether they carried out TVT in the outpatient department, day surgery unit or as inpatients. The type of anaesthetic was requested and whether the surgeons used the concept of aqua dissection. The respondents were asked if they used a catheter introducer and if so what size catheter they used. They were asked if a cystoscopy was routinely carried out and whether this was carried out after each or both passes of the needle. The surgeons were asked whether they routinely used a cough test and if so at what bladder volume. They were asked whether the urethra was checked after the removal of the plastic sheath to ensure the sling is not too tight and if so what size dilator was used. They were asked whether a catheter was inserted at the completion of the procedure and if so whether a suprapubic or urethral catheter was used. They were asked at what post operative volume was deemed acceptable for discharge, whether the patients returned for follow up and if so, how long postoperatively.

Results

250 replies were received including 14 from surgeons who did not perform the procedure. This left 236 (53%) replies from 200 gynaecologists and 36 urologists for analysis. 184 replies were from district general hospitals, 43 from teaching hospitals and 9 from regional referral centres: this represents 8386 annual TVT procedures and is therefore representative of practice in the UK. Preoperative urodynamics were carried out in 222 units (94%). The majority of respondents carry out TVT as inpatients (n = 213) compared with day surgery units (n = 62) and only 1 surgeon carries out TVT in the outpatient department. Most centres use regional anaesthesia (n = 164) compared with general (n = 101), local plus sedation (n = 96) and local alone (n = 15). Opinion was divided between aqua dissection with 125 respondents using this technique compared with 111 against. The amount of local anaesthetic used ranged from 20–200 mls (mean 92, median 90 mls). Almost all surgeons use a catheter introducer (n = 211: 89%) with an average size of 18g. All surgeons (100%) carry out an intraoperative cystoscopy with 108 doing a cystoscopy after each needle pass and 128 after both needles have been passed. 200 surgeons use a cough test against 36 against: the majority (n = 144) simply fill the bladder to an approximate volume (range 150-1000mls: mean 368: median 350mls). 3 surgeons filled the bladder to the leak point pressure on urodynamics, 8 filled to bladder capacity on urodynamics and 10 used other measurements prior to a cough test. The majority (n = 125) do not routinely check the urethra after removal of the covering plastic sheaths. Those that do (n = 101) use an average of an 8 hagar gauge or 18 french gauge dilator. The use of a catheter at the completion of the operation was equally divided: 115 of respondents who do use a catheter preferred an urethral (n = 109) against a suprapubic catheter (n = 6). The majority of surgeons (n = 144) use a post-void residual bladder volume of <100mls as acceptable for discharge: 8 use a residual of between 100-200mls, 10 use a voided volume equal or greater than twice the voided volume, and 17 use other criteria. 229 of surgeons follow up patients at between 1-52 weeks (mean 8 weeks: median 10 weeks).

Conclusions

This study has shown that there are considerable variations in the way TVT is carried out in the UK and also between gynaecologists and urologists. Despite this, the essential question is whether variation from the original description by Ulmsten affects the outcome. The vast amount of published data fails to support this and therefore outside the context of scientific trials there should be no contraindication to variation in technique.

References

(1) UlmstenU, Henriksson, Johnson P, Varhos G. An ambulatory surgical procedure under local anesthesia for treatment of female urinary incontinence. Int Urogynecol J Pelvic Floor Dysfunct 1996; 7(2): 81-86.