

SUMMARY

Female urinary incontinence is a distressing conditions causing significant morbidity, affecting the social, psychological, occupational physical and sexual lives of 15% to 70% of the female population depending on which age group are analyzed.

The mode of urinary leaking most commonly diagnosed is that of genuine stress incontinence. The international continence society defines genuiue stress incontinence as involuntary loss of urine during maneuvers that increase intra-abdominal pressure (for example coughing), and reflects urethral hypermobility or intrinsic sphincter deficiency in absence of detrusor activity.

Although conservative treatment alternatives for stress incontinence might give temporary relief, definite cure of the illness requires surgery. Successful incontinence surgery has traditionally been rather invasive, involving general anesthesia and laparotomy.

Burch colposuspension is a well established operation for the correction of anatomic stress incontinence. But even in the hands of experienced incontinence surgeons, this operation and other various sling procedure results in cure rates tens of percents below one hundred. Moreover such major surgeyr is associated with post-operative moribidity, tendency of urinry retention, the need for catheterization, prolonged sick- leave and considerable costs.

The introduction of the endoscopic techniques has profoundly altered the postoperative recovery and enabled early release from the hospital. However, it still requires general anesthesia, long operative time, skillful surgeons, expensive equipment and overnight stay at the hospital. The same urinary retention problems as after **Burch** performed by laparoscopy are present and restriction from physical exercise for several weeks is also a defect.

Today there is an increased request for less invasive and simpler methods for surgical treatment of stress incontinence. Despite the fact that some procedures fulfil the criteria of minimal invasiveness, the cure rates and the duration of effectiveness have, however, not reached acceptable levels. This is true for periurethral injections and for most needle suspension procedures.

While the traditional surgical methods for curing incontinence rely on the 'pressure transmission theory', a new surgical procedure has been presented by *Delorme and Co-Workers in (2001)* called the transobturator vaginal tape procedure. In the previous study very promising results on the effectiveness of the T.O.T. procedure in curing stress incontinence have been presented.

The transobturator tape procedure fulfills the criteria of minimal invasive incontinence surgery which are short hospital stay (less than 24 hours), post operative mobilization within hours, no need for indwelling catheter or drains normal everyday physical activity, physical exercise possible 2 weeks postoperatively, the use of local anesthesia, minimal tissue destruction, short duration of the operative technique, less need for postoperative analgesia and hence the short term and long term

complication should be less. At the same time the results of such procedure are very promising with a cure rate of more than 85%.

The aim of our study was to evaluate the safety and efficacy of the T.O.T. procedure for the surgical treatment of female genuine stress urinary incontinence and to test its applicability as an ambulatory and minimal invasive operation.

Between March 2004 and August, 2006, in obstetrics and Gynecology Department, Benha Faculty of Medicine, 30 women suffering from genuine stress urinary incontinence underwent the T.O.T. procedure were included in this study.

All patients were assessed clinically and by urodynamic studies pre-operative and two months post-operatively. Also, all patients were assessed clinically 6 & 12 months post-operatively. If results of the urodynamic studies were not satisfactory at the second month post-operatively, they were repeated to the 6 or 12 months.

Our results showed that trans-obturator type procedure is a highly effective procedure in treating female genuine stress urinary incontinence. In our study, the overall success rate was 93.3% and improved rate was 6.7% and the results did not change after 12 months follow –up.

Moreover, it was documented in the present study the criteria of minimal invasiveness of the tension-free vaginal tape procedure as the short hospital stay, immediate post-operative ambulation, no need for indwelling catheters, the use of local anesthesia, minimal, tissue

destruction, short duration of the operative technique, less need for postoperative analgesia and the less incidence of complications.

We could conclude from our study that trans-obsturator tape procedure (T.O.T.) appears to be a safe and effective minimally invasive ambulatory surgical technique for treatment of female genuine stress.

We could concluded also that the T.O.T. is at least as effective in obese women as in those with a lower BMI.

We recommended further studies to be done on large number of patients and for follow-up for longer periods to test the effectiveness of this procedure on the long run. Also we recommend that all gynecologists should learn the technique and apply it for the properly selected cases.