

## ***INTRODUCTION***

Urinary incontinence is a very common symptom that adversely affect the quality of life of many women Worldwide. The reported prevalence rates range from 4.5% to 53%, with an early prevalence peak in midlife (prevalence of 30% to 40%). Approximately 50% of all incontinent women are classified as having stress urinary incontinence (SUI) (*David et al., 2005*).

Urinary incontinence has asignificant psychosocial impact on individuals and families. It can result in a loss of self-esteem and decreased ability to maintain an independent life style. As a consequence, excursions outside home, social events and sexual activity may be restricted or avoided entirely (*Pierre et al., 2001*).

A major cause of urinary incontinence is genuine stress urinary incontinence, defined as the involuntary loss of urine when intravesical pressure exceeds the maximum urethral closure pressure in the absence of detrusor overactivity (*Abrams et al., 1990*).

More than 150 different surgical procedures for treatment of female stress urinary incontinence have been described in the literatures. The Burch retropubic colposuspension is considered the primary technique for the management of patients complaining of stress urinary incontinence (*AlCalay et al., 1995*).

Traditional access to the retropubic space however, requires an abdominal incision and extensive dissection maneuvers that can be associated with significant intra-operative and post-operative morbidity and prolonged

hospitalization. So, there is an increased request for less invasive simpler and cheaper methods for surgical treatment of stress incontinence. Despite the fact that some procedures fulfil the criteria of minimal invasiveness, the cure rates however, not reached acceptable levels. This is true for periurethral injection and for most needle suspension procedures such as, the Stamey and Peryera procedures (*Meshia et al., 2001*).

The pubovaginal fascial slings are increasingly recognized as a great form of treatment for stress urinary incontinence especially when it is due to intrinsic sphincter deficiency. Several series of women treated with pubovaginal rectus fascial slings present evidence of durable efficacy for a prolonged follow up period (*Swierzewski and Castilla, 1994*).

Compared to other sling procedures tension free vaginal tape (TVT) is fairly simple technique and could be done under local anaesthesia. Minimal dissection is needed with short hospital stay and minimal post-operative complications (*Laurikainen et al., 2004*).

Since the introduction of the (TVT) , it has been attempted to reduce the morbidity of the procedure. The transobturator technique offers an approach that avoids the bladder region, resulting in less bladder lesions. Recently, TVT-Secur has been introduced allowing vaginal introduction of a mid-urethral sling without passing the retro-pubic space nor the obturator foramen and its related nerves and vessels (*Hazewinkel et al., 2009*)

The TVT-Secur system is a new , minimally invasive sling procedure for the treatment of (SUI). The device consist of a short 8×1.1 cm proline laser cut tape, the same material of the standard TVT, which is coated on both ends with an absorbable fleece material (Ethisorb). The absorbable material is made of vicryl and PDS and it has been shown to provide strong fixation force into tissues. (*Meschia et al., 2009*)

This material is usually absorbable within 90 days with proline remaining intact to provide long term fixation. A curved stainless steel inserter instrument and release wire is attached on both ends to the mesh. The prosthetic implant is placed under the mid-urethra and can be fixed in "hammock" position into the obturator internus muscle or in the "U"-shaped position into the connective tissue of the urogenital diaphragm behind the pubic bone. (*Meschia et al., 2009*)