

MANAGEMENT OF STRESS URINARY INCONTINENCE

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LIST of ABBREVIATIONS

5-HT	5-hydroxytryptamine
ATP	Adenosine Tri-Phosphate
BMI	Body Mass Index
CMG	Cysto Myogram
CS	Cesarean Section
DMSO	Dimethyl sulfoxide
Dx/HA	Dextranomer/ hyaluronic acid
EMG	Electro Myography
ESUs	Electrical stimulation units
EVOH	Ethylene Vinyl Alcohol
FDA	Food and Drug Administration
ICIQ	International Consultation on Incontinence Questionnaire
ICS	International Continence Society
ISD	Intrinsic Sphincter Deficiency
LUT	Lower Urinary Tract
MMK	The Marshall-Marchetti-Krantz Technique
NA	Noradrenaline
Pabd	Intra Abdominal Pressure

LIST of ABBREVIATIONS

PAHG	Poly Acrylamide Hydrogel
Pdet	Detrusor Pressure
PF	Pelvic Floor
PFEs	Pelvic Floor Exercises
PFMs	Pelvic Floor Muscles
Pves	Intra Vesical Pressure
SUI	Stress Urinary Incontinence
TOT	Trans-Obturator Tape
TVT	Tension-Free Vaginal Tape
UI	Urinary Incontinence
UPP	Urethral Pressure Profilometry
URYX	Urethral Bulking Agent
UTI	Urinary Tract Infection
VLPPA	Valsalva (Abdominal) Leak Point Pressure

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Introduction

Stress urinary incontinence is a distressing symptom that has a major impact on the quality of life. It is defined as an involuntary loss of urine, which is a social or hygienic problem. The International Continence Society (ICS) adopted the term "genuine stress incontinence" which was defined as the "involuntary urethral loss of urine when the intravesical pressure exceeds the maximum urethral pressure in absence of detrusor activity" (*Abrams et al., 1988*).

SUI is the most common form of urinary incontinence, occurring in pure or mixed forms in nearly 80% of women with incontinence, according to two European studies (*Hunnskaar et al., 2004*).

Pelvic floor muscle exercises (Kegel exercises) are used to rehabilitate and strengthen the pelvic floor muscles and promote urine storage. Compliance is often poor, but results have been favorable for motivated patients who receive proper clinical training and assessment and who repeat contractions several times a day for at least 3 months (*Diokno et al., 2004*).

Electrical stimulation with low frequencies is most commonly delivered through vaginal or rectal probes. Brief doses of electrical stimulation can strengthen muscles of the lower pelvis in a way similar to exercising the muscles (*Rovner et al., 2004*).

Recently, a new selective serotonin and norepinephrine reuptake inhibitor, duloxetine has been approved throughout the European Union for the treatment of SUI (*Millard et al., 2004*).

Many different surgical procedures have been described for the treatment of urodynamic stress incontinence and there is no general agreement as to the most effective (*Karen et al., 2004*).

Until recently, colposuspension has been the most popular choice for primary surgery and appears to be the most effective treatment of stress incontinence with reported cure rates of up to 96% (*Jarvis, 1994*).

An injection with urethral bulking agents is the least invasive surgical procedure and can be done under local anaesthesia. Silicone microballoons have recently been introduced (*Meschia et al., 2002*).

The original mid urethral sling model of Ulmsten and Petros led to the development of the tension-free vaginal *tape* (TVT) (*Ulmsten, 1998*).

The outcomes data available for TVT seem to remain stable over the observed follow-up periods (*Nilson, 2004*).

Trans obturator tape (TOT) is newer even than TVT and is a slight modification on that technique. It dates back to the early 2000s and again involves the placement of a manufactured tape sub urethrally, but

in TOT the tape is anchored through the obturator foramen (**Roumeguere et al., 2005**).

Successful outcomes have been achieved by use of TVT to treat recurrent SUI after failure of a previous mid urethral sling placement (***Lee, 2007***).