

URINARY TRACT INFECTION FOLLOWING STRESS INCONTINENCE SURGERY: A COMPARISON OF PREVALENCE AND RISK FACTORS BETWEEN A SHORT-SLING (GYNECARE TVT ABBREVO® CONTINENCE SYSTEM) AND STANDARD TRANSOBTURATOR MIDURETHRAL SLINGS (GYNECARE TVT™ OBTURATOR SYSTEM)

Hypothesis / aims of study

Midurethral sling (MUS) procedures (transobturator midurethral sling (TOS) is used as first choice surgical treatment of stress urinary incontinence (SUI). The ABBREVO® Continenence System is shortened sling and its placement is considered a less invasive procedure and has been developed as an alternative to the standard TOS. One of the most common complications following MUS is urinary tract infection (UTI). The purpose of the current study is to compare between two surgical procedures in the prevalence and risk factors of UTI one year after MUS.

Study design, materials and methods

A retrospective cohort study was conducted comparing the prevalence and risk factors for UTI up to one year following two procedures for SUI repair. The study population comprised of all patients who underwent a MUS surgery between June 2013 and June 2015. Data were retrieved from the patients' medical records. Data included demographic details, gynecological history, laboratory and urine culture results, and medical treatment. Diagnosis of UTI was based on a positive urine culture. Data were analyzed using descriptive statistics.

Results

During the study period, of 178 MUS procedures, 30 (16.8%) were ABBREVO procedures and 148 (83.1%) were standard TOS procedures. UTI was noted in 21% (38 patients) within the first year following surgery. A non-significant fourfold increased risk of UTI was found following TOS (17% and 4%). The most common pathogen found in urine cultures in both groups was *E. coli* (10% and 2%). A comparison of risk factors and intra- and post-operative characteristics of patients are presented in the table. Bacterial antibiotic resistance was threefold higher in the ABBREVO group. However, this did not reach statistical significance ($p=0.06$).

Table: **Characteristics of study population 12 months after Midurethral sling placement**

Characteristics	TVT™ OBTURATOR System	TVT ABBREVO® Continenence System	P value
Improvement of Stress incontinence after YEAR (%)	48.9	10.7	0.6
UTI after year (%)	4	17	P=0.8
e.coli (%)	2	10	P=0.6
Klebsiella (%)	0	1	P=0.5
combination of two bacteria (%)	2	3	P=0.2
Antibiotic resistance (%)	17	51	P=0.06
Antibiotic treatment (%)	9	43	p=1.0
Recurrent urinary tract infections (%)	2	4	P=0.1
Pyelonephritis (%)	0	1	P=0.5
Hospitalizations after surgery (%)	4	11	P=0.4

Interpretation of results

A statistically longer duration of hospitalization was noted in the ABBREVO group. Among patients with UTI, after one year, no significant differences were noted regarding urinary tract complications such as recurrent UTI, pyelonephritis and need for readmissions between the groups.

Concluding message

No significant differences were noted between patient undergoing two surgical procedures for SUI repair with regard to surgical characteristics and UTI prevalence and risk factors.

Disclosures

Funding: NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** IRB approval number: 0454-15-SOR **Helsinki:** Yes **Informed Consent:** No