# Sepsis following TVT sling procedure.

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**Hypothesis / aims of study**

There exists limited information on complications and infection related to the Tension-free vaginal tape (TVT) procedure, although mesh applied in vaginal surgery may be associated with severe infection. TVT is a common surgical procedure to treat stress urinary incontinence, but complications may arise such as damage to urinary bladder and/or postoperative urinary tract infection.

**Materials and methods**

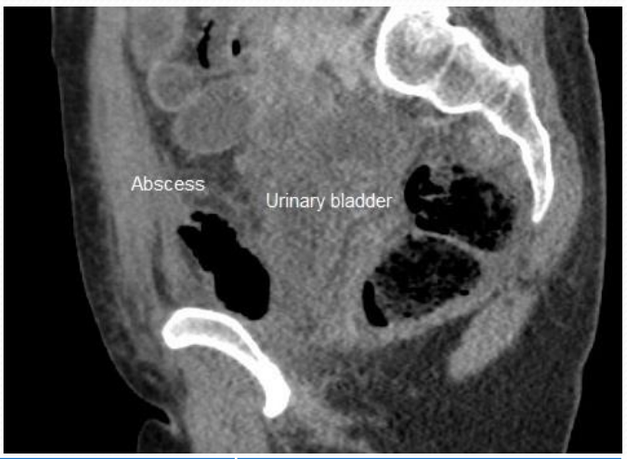
A systematic review of the literature was performed using the search string "(Trans Vaginal Tape OR SMUS OR suburethral sling) AND (infection OR sepsis)" with language restricted to English resulting in one case report.

All medical records of women undergoing TVT procedure in the department in the period January – December 2016 were evaluated. Inclusion criteria was TVT procedure and sepsis.

Each procedure is described from admission to follow-up.

**Results**

Four women were included in the present study. The women were all submitted due to primary stress incontinence without previous urinary incontinence or vaginal surgery, diabetes, hypertension. ASA 1. The surgical procedure was performed in local anesthesia without antibiotic treatment. No perioperative complications were observed, bleeding was less than 50 cc and no problems were described regarding placement of the sling. All women underwent cystoscopy after sling insertion, with no observed defects or damage. All women were able to empty their bladder postoperative, confirmed by ultrasound and no bleeding or pain were recorded. All women went home after a few hours' observation in the clinic.




| Case 1, 37 year old female | Case 2, 51 year old female | Case 3, 41 year old female | Case 4, 42 year old female |
|---|---|---|---|
| Admitted 5 days after operation with septic shock (hypotension 90/57 mmHg, fever 40°C); CRP 303mg/L | Admitted 2 days after operation with abdominal pain, fever 39,3°C; CRP 202 mg/L | Admitted 2 days after operation with abdominal pain, afebrile; CRP 217 mg/L | Admitted 3 days after operation with fever 37,9°C, hematoma at lateral tape incision; CRP 294 mg/L |
| Imaging: CT-verified abscess around tape | MRI: Inflammatory reaction around TVT, no abscess | Ultrasound: Subcutaneous hematoma without visible infection | Imaging: No signs of abscess on UL scans |
| Primary treatment: i.v. antibiotics, stabilization | Primary treatment: i.v. antibiotics for 4 days | Primary treatment: i.v. antibiotics for 4 days | Primary treatment: Oral antibiotics, with observation; progression of symptoms with elevating CRP |
| Operative TVT removal 6 days after primary operation | Operative TVT removal 7 days after primary operation, with findings of purulent discharge | Operative TVT removal 7 days after primary operation, after clinical signs of tape infection | Operative TVT removal 6 days after primary operation, with i.v. antibiotics |
| Discharged 11 days after admission and recovered | Discharged 9 days after admission and recovered | Discharged 10 days after admission and recovered | Discharged 5 days after admission and recovered |

**Interpretation of results**

- All operations were performed by a highly trained, qualified team, using evidence-based techniques and instruments
- No suspicion of bacterial contamination; infections from various pathogens
- Case 1 critically ill at admission – cases 2-4 seriously ill
- All four patients recovered
- Patients 2-4 await re-operation with TVT, and have stress incontinence.

**Concluding message**

Infection following TVT is a rare, but serious condition. Our results suggest that the TVT sling should always be removed as soon as possible when signs of infection appears. After removal of an infected TVT, antibiotic treatment and complete recovery, re-operation with TVT is a viable alternative.

**Financial Disclosures**

The authors have no financial ties with the subjects mentioned in the presentation.