

WHAT LENGTH ARE "FULL-LENGTH" SLINGS ?

Hypothesis / aims of study

Synthetic "full-length" midurethral slings remain the standard of care for urinary stress incontinence surgery. Mini-slings are defined as "short length" mid-urethral slings. Numerous studies have assessed the efficacy of mini-slings versus "long" (full-length) slings. The precise length of mini-slings is perfectly known, provided by the manufacturer. But actually, the precise length of implanted "full-length" sling is not known, since the sling is cut under the skin.

Study design, materials and methods

We have precisely measured the actual length of retropubic and transobturator slings placed in 10 patients who underwent mid-urethral sling procedure (TVT-EXACT™ or TVT-O™)

Procedures were carried out under either general or spinal anesthesia, according to the patient's wishes. Surgical procedures were performed using the vaginal route, in accordance with the technique described by the manufacturer. For all patients, preoperative data and follow-up data at 6 weeks were recorded. Each evaluation included questionnaires to evaluate satisfaction (visual analog scale (VAS) and Patient Global Impression of Improvement (PGI-I)), quality of life and symptom severity (International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF)) and a physical exam. The primary outcome was the actual length of the placed sling (the part of inserted sling). Measurement was performed using a sterile waterproof centimeter ruler. The total length of the sling was measured at the beginning of the procedure and the resected parts of the sling were measured just after cutting both sides of the sling.

Results

The actual length of "full-length" slings was ranging from 14.5 to 21.5 mm (mean 18.4 cm +/- 3.0). The mean actual length was 17 +/-2.87 mm in trans-obturator group and 20.4 +/-0.8 mm in retropubic group (p=0.12) (Wilcoxon signed rank test). No correlation was founded between the actual length and objective/subjective cure rates or patients' satisfaction.

Interpretation of results

To our knowledge, this is the first study that assessed the actual length of "full-length" slings.

When compare to mini-slings, the length is shorter (maximum 12 cm for TVT-ABBREVO™ that is the "longest" mini-sling). TVT and TVT-O slings are supposed to measure 45 cm length (CE mark document provided by the manufacturer). However, in the current series, we have measured the actual length of the sling and we have observed an increased length (47 to 48.3 cm). An hypothesis is that the sling is extended (elasticity). However, the measurements have been performed before the beginning of the surgery and at this time, the sling is not supposed to be deformed.

Further study should assess the correlation between success rates and post-operative complication associated with the actual length of the implanted since. Indeed, for example, if the sling is too tight, the length of the implanted sling may be shorter. An hypothesis was that the actual length is associated with body mass index, but in the current series, no correlation was found between the two characteristics.

Concluding message

In the current series, the actual length of "full-length" slings was ranging from 14.5 to 21.5 mm (mean 18.4 cm).

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** CEROG **Helsinki:** Yes **Informed Consent:** Yes