

ONE-YEAR ANATOMICAL AND URINARY SYMPTOMATIC OUTCOMES AFTER THE TENSION-FREE VAGINAL MESH PROCEDURE FOR PELVIC ORGAN PROLAPSE

Hypothesis / aims of study

The tension-free vaginal mesh (TVM) procedure expected to be a minimally-invasive technique for correcting pelvic organ prolapsed. The aim of this study was to evaluate the one-year anatomic and urinary symptomatic outcome of TVM procedure for pelvic organ prolapse (POP).

Study design, materials and methods

A retrospective analysis was performed on 110 patients who underwent TVM procedure for pelvic organ prolapse (POP) between October 2006 and September 2007. Anatomical outcome was measured by the POP-quantification (POP-Q) system. Urinary symptomatic outcome was evaluated by International Prostate Symptom Score (IPSS)-quality of life (QOL) questionnaire and overactive bladder symptom score (OABSS).

Results

At one year, POP-Q scores at any points were significantly improved compared to preoperative scores. Anatomical failure (any postoperative POP-Q point \geq stage II) was found in 4 (3.6%) patients. Among them, one patient required re-TVM procedure. Postoperative total IPSS and QOL scores was significantly improved compared to preoperative scores ($P < 0.01$). Both storage and voiding symptom subscores were significantly improved after the TVM procedure. The intraoperative complication was observed in 3 patients. Two (1.8%) patients had injury to the bladder. One (0.9%) patients had significant hemorrhage ($>500\text{ml}$). There were no life-threatening complications. During follow-up, four (3.6%) patients developed vaginal mesh extrusion. All mesh extrusions occurred before 3 months. All of them were located in the midline and the cranial end of the scar. However, three out of four patients were asymptomatic and no patient required surgical intervention. No cases of serious adverse tissue reactions related to mesh were found during the follow-up.

Interpretation of results

- (1) At one year follow-up, it is clear that the TVM procedure is safe and efficient method in surgical treatment of POP.
- (2) The underlying cause of the vaginal mesh exposure may be defective vaginal wound healing.
- (3) The TVM procedure caused a significant improvement of both storage and voiding symptoms.

Concluding message

We demonstrated a significant improvement in anatomic and urinary symptomatic outcomes among patients undergoing the TVM procedure for POP one year after the surgery. No life-threatening complications occurred during or after the procedure. The TVM procedure appears to be safe, effective, and durable treatment for POP repair.

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	University of Occupational and Environmental Health Ethics Committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes