

DOES LAPAROSCOPIC EXTRAPERITONEAL INGUINAL HERNIOPLASTY IMPAIR POSTOPERATIVE VOIDING FUNCTIONS?

Hypothesis / aims of study

Voiding difficulties, especially urinary retention that necessitates catheterization after herniorrhaphy were a well known, but the impact of laparoscopic totally extraperitoneal inguinal hernioplasty (TEP) on postoperative voiding functions has not been clear. The purpose of this study was to evaluate the impact of TEP on postoperative voiding functions.

Study design, materials and methods

A total 30 patients performed TEP were included in the study. We performed uroflowmetry, and International Prostate Symptom Score (IPSS) / Quality of Life (QOL) questionnaire on preoperative and first postoperative day. The evaluated uroflowmetry parameters were maximum flow rate, total voiding time, total voiding volume, and postvoiding residual urine volume. Postvoiding residual urine volume was measured by ultrasound. All patients were not performed postoperative drainage of the urinary bladder. A paired t-test was used to compare the variables of uroflowmetry, and IPSS / QOL score on preoperative and first postoperative day.

Results

The mean age of patients was 63.0 (range 33 – 88). The overall incidence of urinary retention following TEP was 3.3% (n = 1). There were significantly decreases of maximum flow rate, and postvoiding residual urine volume (p = 0.002, 0.011). There were no significantly changes of total voiding time, and total voiding volume (p = 0.117, 0.098). There were significantly aggravations of IPSS and QOL scores (p = 0.002, 0.000).

Interpretation of results

TEP was associated with significant deteriorations in some uroflowmetry parameters and IPSS/QOL scores.

Concluding message

TEP has influence on postoperative voiding function.

Table 1. Comparison of preoperative and postoperative uroflowmetry parameters and International Prostate Symptom Score / Quality of Life score in 30 patients who underwent laparoscopic extraperitoneal inguinal hernioplasty

	Preoperative	Postoperative	p-value
Maximum flow rate (ml/min)	13.3 ± 5.4	10.8 ± 5.8	0.002
Total voiding time (sec)	22.6 ± 8.4	26.2 ± 11.1	0.117
Total voiding volume (ml)	202.0 ± 90.1	178.3 ± 100.4	0.098
Postvoiding residual urine volume (ml)	21.2 ± 22.8	59.5 ± 83.7	0.011
International Prostate Symptom Score	9.9 ± 5.2	13.1 ± 6.8	0.002
Quality of Life score	2.5 ± 1.0	3.5 ± 1.0	0.000

Specify source of funding or grant	None
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	retrospective study based on medical data.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No