

# Surgical Technique of Laparoscopic Nephropexy using TVT(Tension Free Vaginal Tape)

## for Patients with symptomatic Nephroptosis

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### OBJECTIVES

Persistently arising flank pain and/or functional impairment in an upright position - verified in split renal function test - constitute an indication for intervention. In keeping with the previously by Huebner et al. published technique in 2004<sup>1</sup>, we report on laparoscopic nephropexy using tension-free vaginal tape (TVT) for symptomatic nephroptosis . The aim of the study was to describe our surgical technique and report about a longer follow-up, as these surgeries were not embedded in a prospective study to begin with, there was also no academical protocol for the postoperative course.

### RESULTS

In all 21 cases the procedure was easily performed without any intraoperative complications. The mean operating time was 47.8 min. and the hospital stay after surgery was in average 4 days due to system requirements.

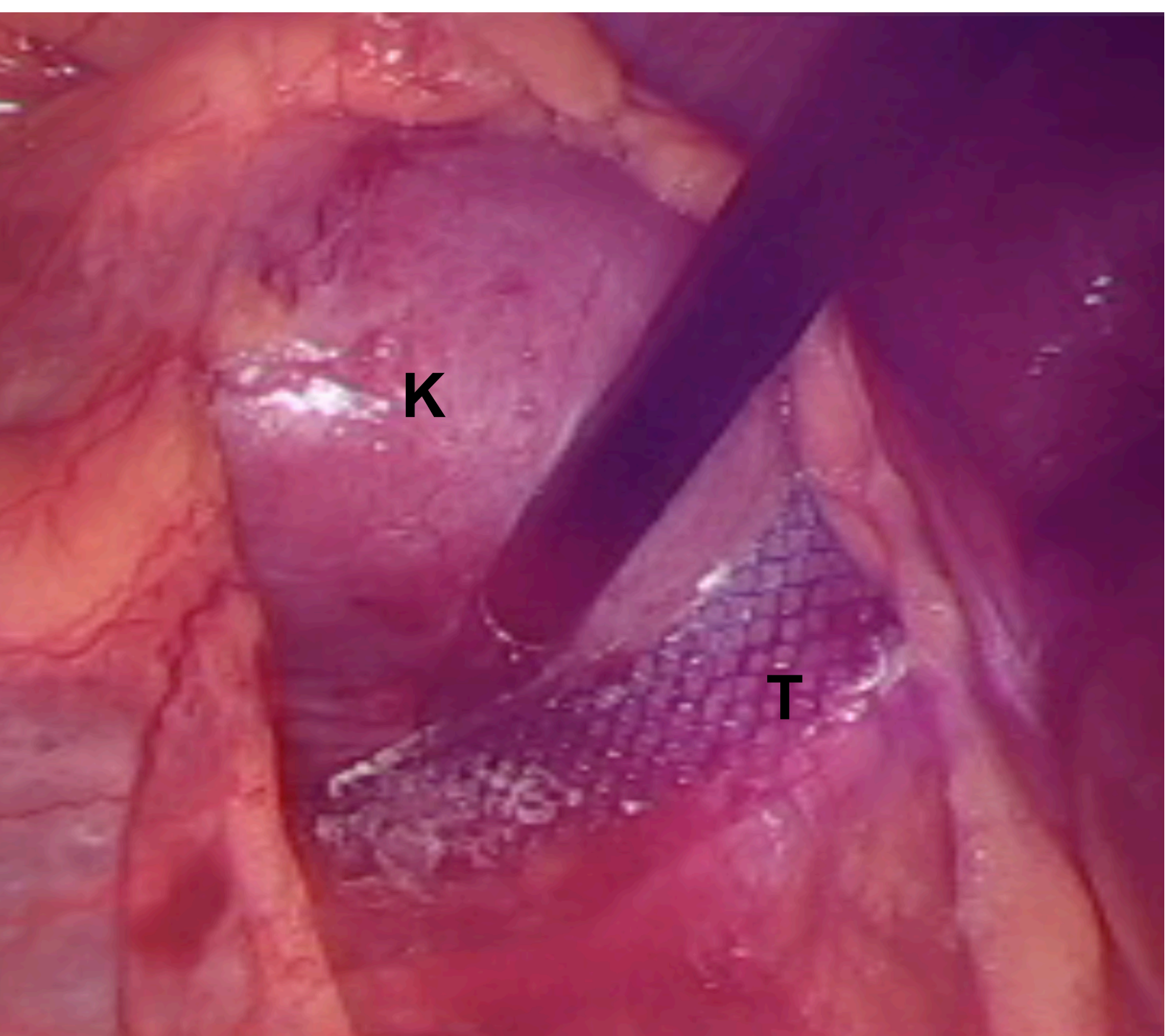
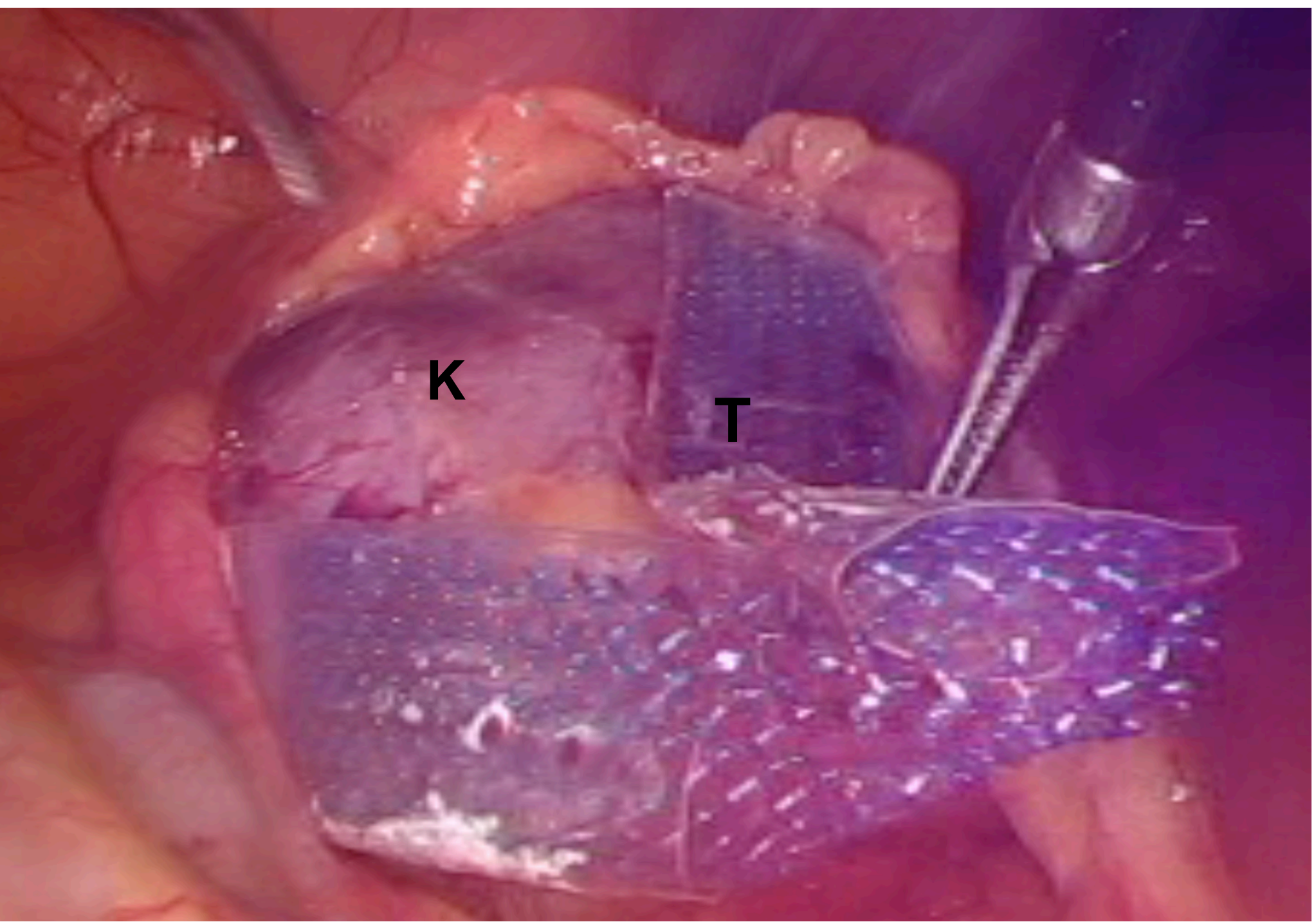
Three patients required postoperative pain management according to Clavien-Dindo I, but there were no other complications. Postoperative intravenous pyelogram and ultrasound showed no recurrence in all cases after a mean follow up of 115.7 mts (range 2,8-227). 19 (90,5%) patients reported an improvement of symptoms, 2 (9,5%) complained about transient pain episodes 13 and 20 days, respectively. The visual analog score improved from 6.2 to 1.1.

### METHODS

From 3/2000 to 5/2019, 21 women (mean age 37.1 yr.) with symptomatic (n=19 right / n=2 left sided) and radiographically proven (ultrasound and intravenous pyelogram, IVP) nephroptosis, were treated by laparoscopic nephropexy using a TVT tape.

Impairment in upright position at split function test was at least 5% (M=12,8%).

After standardized laparoscopic mobilization of the lower pole of the kidney, identification of the ureter and renal pelvis, the needle of the TVT is directed below the lower pole of the kidney and pushed through the abdominal wall paravertebrally, just under the level of 12th rib. secondly it is pushed through the abdominal wall again and guided over the lateral margins of the kidney. The sling is tightened until the kidney is fixed to the dorsal wall of the abdomen in a “loose fit” manner. No further fixation is needed. No of postoperative drainage was placed.



The tape is placed on the lower pole and tightened in a loss fit manner.

(K= kidney; T= tension-free tape)

### CONCLUSION

Using a tension-free vaginal tape for laparoscopic nephropexy is a safe and technically feasible procedure. In fact, prospective studies as well as good clinical results in a bigger cohort may be appreciated. However, leaving out the discussions about indications for nephropexy, we believe this simple technique is worth being presented to other urologists in order to broad the horizons of laparoscopic nephropexy.

### REFERENCES

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