

# **Ureteral fibrin sealant injection of the distal ureter during laparoscopic nephroureterectomy--a novel and simple modification of the pluck technique.**

Authors: Mueller TJ, DaJusta DG, Cha DY, Kim IY, Ankem MK

Publication Date: 2010

## **Abstract:**

**OBJECTIVES:** To describe a novel technique to block the distal ureter, thus preventing spillage of tumor cell bearing urine during laparoscopic pluck nephroureterectomy. Currently, there is no consensus on the appropriate management of distal ureter during laparoscopic nephroureterectomy.

**METHODS:** A review was performed of patients who underwent modified laparoscopic pluck nephroureterectomy for upper tract transitional cell carcinoma from July 2007 to December 2008. After confirming an absence of bladder tumors, an 8F olive-tipped ureteral catheter was introduced into the ureteral orifice. Five milliliters of Tisseel was injected into the ureter. Five milliliters of indigo carmine was injected intravenously to confirm the presence of ureteral blockage. Using a Collins knife, the ureteral orifice was dissected until the extravesical fat was visualized. A Foley catheter was placed and a laparoscopic nephroureterectomy was then completed. The drain was removed on the 3rd postoperative day and Foley was removed on the 10th postoperative day after a normal cystogram.

**RESULTS:** We performed 8 procedures using the above-described technique. The median age was 62 years, all were males; 2 were operated on the right side and 6 on the left. The average operative time and estimated blood loss was 308 minutes and 150 mL, respectively. The average length of stay was 6 days. One major and 2 minor complications (ileus) were noted. Mean cancer follow-up is

11 months. All specimen margins free of tumor. No extravesical or intravesical recurrences were noted.

CONCLUSIONS: Ureteral fibrin sealant injection produces dependable ureteral obstruction during laparoscopic pluck nephroureterectomy and may prevent tumor spillage in the extravesical tissues.

Copyright 2010 Elsevier Inc. All rights reserved.