

# Bladder Perforation During Laparoscopic Donor Nephrectomy

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## INTRODUCTION

Bladder perforation is a rarely reported complication of laparoscopic donor nephrectomy. It was first reported by Metcalfe and colleagues.<sup>(1)</sup> Herein, we report a case of bladder perforation that occurred during blunt penetration of the peritoneum for kidney extraction.

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## CASE REPORT

A 25-year-old man underwent laparoscopic donor nephrectomy through intraperitoneal approach in the semiflank position at our center. He had no history of surgery. A Foley catheter was placed into the

bladder before the operation which was well functioning. The colon was medialized for entrance into the retroperitoneal area and after successful dissection of the kidney and pedicle division, the kidney was extracted through a previously made Pfannenstiel incision (Figure). During blunt dissection for peritoneal penetration, the surgeon's finger inadvertently entered the bladder. The resulted perforation had a 1.5-cm width and was extraperitoneal. After kidney extraction, the bladder was repaired in 2 layers. Drainage of the bladder was performed using a urethral catheter. The patient did not experience any other complications during the procedure. The catheter was removed after 4 days and due to the small size of the perforation, we did not perform postoperative cystography.

## DISCUSSION

Laparoscopic donor nephrectomy is less frequently accompanied by blood loss, prolonged hospitalization, postoperative analgesic requirement, long convalescence time, or delayed return to work in comparison with open surgery. Postoperative retroperitoneal bleeding and injuries to the epigastric artery and the bowel are among the most important complications of laparoscopic technique.<sup>(2-4)</sup> In literature review, we found only 1 report of bladder



The incision used to extract the kidney.

perforation during the entrance into the peritoneum for kidney extraction. Metcalfe and colleagues described 2 cases with bladder perforation during this procedure.<sup>(1)</sup> Both of these cases were in women with a history of tubal ligation. To our knowledge, our case is the third being reported. We could not find any predisposing factor for bladder perforation in our patient.

We should keep in mind that the finger may inadvertently enter the bladder during blunt peritoneal penetration. However, a careful sharp peritoneal incision is safe and thus recommended. A sharp incision after a careful identification of the peritoneum is reasonable to avoid this complication. We also emphasize that a negative abdominopelvic surgical history and appropriate drainage of the

bladder, as in our case, do not ultimately protect against this complication. When bladder perforation occurs, the surgeon can simply repair it.

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