

## Pure Laparoscopic Repair of Benign Colovesical Fistula Without Colectomy or Proximal Diversion: Report of 2 Cases

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Submitted November 10, 2009 - Accepted for Publication December 16, 2009

### ABSTRACT

The authors report management of 2 patients with symptomatic colovesical fistula due to diverticular disease of the colon. Initial laparoscopy showed that there was: (1) no active inflammation, malignancy, or abscess; (2) a single fistulous communication without much adhesion; (3) a pliable colon; (4) no distal obstruction or other pathology in the large bowel; (5) a healthy omentum to interpose between the bowel and bladder. Therefore, conventional colectomy and proximal diversion were deferred. Laparoscopic excision of the fistula and closure of the bladder and colon were performed, with interposition of the omentum. To the authors' knowledge, this is the first report of such a procedure. The 2 patients remained symptom-free after 5 years and 6 months, respectively. Pure laparoscopic repair of a colovesical fistula without colectomy or proximal diversion appears to be feasible, safe, and effective in select patients.

**KEYWORDS:** Colovesical fistula; Laparoscopy; Colonic diverticulosis

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**CITATION:** *UroToday Int J.* 2010 Feb;3(1). doi:10.3834/uj.1944-5784.2010.02.06

### INTRODUCTION

Colovesical fistula is an uncommon complication of colonic diverticulosis. The reported incidence is around 2% [1]. The patients commonly present with irritative lower urinary tract symptoms (LUTS), pneumaturia, fecaluria, and recurrent urinary tract infection (UTI).

Contrast computed tomography (CT) is the most sensitive diagnostic investigation because it demonstrates the presence of the fistula and presence or absence of abscess. Colonoscopy and cystoscopy are done to rule out malignancy.

The standard management of colovesical fistula is colectomy and/or diversion after excision of the fistula [1,2]. The present authors report 2 patients with colovesical fistula and no pericolic abscess. In addition, the colon in these patients did not show any active inflammation and was pliable. Hence, the colonic defect was closed primarily without colectomy or proximal diversion using procedures reported elsewhere

[3,4]. The purpose of the present report was to describe the technique of excision of the fistula and closure of colonic and bladder defects using only laparoscopy.

### CASE REPORT

The authors report the management of colovesical fistula in 2 patients.

#### Case 1

The first patient was a 46-year-old male who presented primarily with dysuria for 2 months and pneumaturia for 2 weeks. He had an episode of terminal hematuria. He also complained of vague lower abdominal pain and constipation.

**Preoperative evaluation.** Clinical examination was unremarkable. A CT scan with rectal contrast revealed an air pocket in the urinary bladder and a fistulous communication between the bowel (sigmoid colon) and the dome of the bladder on the left side. There was no abscess in the pelvis.