

Case Report

Laparoscopic Boari Flap Repair: Report of 3 Cases

MANICKAM RAMALINGAM, MS, MCh, DNB (Uro),
KALLAPPAN SENTHIL, MS, MCh, FRCS,
and MIZAR GANAPATHY PAI, MS, MCh (Uro)

ABSTRACT

Purpose: Boari flap reimplantation is one of the options for ureteric reimplantation when the diseased ureteric segment is long. Open Boari flap reimplantation is well established. In this paper, we describe laparoscopic Boari flap reimplantation in 3 patients.

Materials and Methods: Since May 2004, 3 patients had a successful laparoscopic Boari flap ureteric reimplantation. Preoperative intravenous urogram and retrograde pyelogram confirmed the length and site of the obstruction. The first patient was a 16-year-old boy with primary obstructive mega-ureter, with the adynamic segment extending from just below the sacro iliac joint. The second was a middle-aged diabetic lady with a long lower ureteric stricture. The third was a ureteric injury that occurred following a laparoscopic ovarian cystectomy.

Results: The mean operative time was around 320 minutes. There were no intra- or postoperative complications. All the patients recovered well and are being followed up clinically and radiologically.

Conclusion: Laparoscopic Boari flap reimplantation is a challenging procedure. With increasing technical skill and confidence, one can attempt the procedure with the obvious advantage to the patient.

INTRODUCTION

THE BOARI FLAP IS A USEFUL OPTION in the surgical management of long-segment lower ureteric stricture. Boari first described this in a canine model in 1894, following which it has been successfully incorporated into clinical practice, especially in the management of injuries to the mid-ureter.¹ The results are good, as long as the surgical principles are adhered to, by using a well-vascularized bladder flap.² The base of the flap should be at least 3 cm and the tip should be not less than 2 cm. The same principles can be followed laparoscopically. In this paper, we present our experience with 3 patients who had a successful laparoscopic Boari flap reimplantation.

MATERIALS AND METHODS

Case 1

A 16-year-old boy presented with vague right-loin pain for 6 months. He did not have any clinical urinary tract infection. Clinical examination was unremarkable. The urine culture was sterile. An intravenous urogram (IVU) revealed a ureteric obstruction at the right sacroiliac joint level with significant ureteropyelocaliectasis. The function was good, but there was delayed drainage. Cystoscopy ruled out any intravesic pathology, and a retrograde pyelogram confirmed the presence of a narrowing of the distal ureter and a transitional zone just below the sacroiliac joint level. Hence, a decision was made to ex-