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Case Report Open Access

A Novel Technique for J-Pouch Ileoanal Formation

Franscois Runau MBBS, MRCS* and David Hemingway MBBS, FRCS, MD

Department of Colorectal Surgery and General Surgery, University Hospitals of Leicester, Leicester Royal Infirmary, Infirmary Square, LE1 5WW, UK

***Corresponding Author:** Franscois Runau,Academic Surgical Specialty Trainee, Department of Colorectal Surgery and General Surgery, University Hospitals of Leicester, Leicester Royal Infirmary, Infirmary Square, LE1 5WW, UK,
E-mail: Franscois_gerald@yahoo.com

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Introduction

Ileoanal pouch formation following total colectomy is a well-recognised procedure in the surgical management of inflammatory bowel disease. There have been various modifications to the formation of the pouch since its inception by Parks in 1978 [1 - 3]. Currently a J-pouch formed with a folded terminal ileum and using a linear stapler device for a side-to-side anastomosis is a favoured technique [4, 5]. We present a technique of using a laparoscopic Echelon® gun for the formation of the J-pouch.

Technique

Informed consent was obtained from the patient prior to his surgical procedure. The patient is a 23 year old gentleman with biopsy proven ulcerative colitis who had underwent a previous subtotal colectomy with end-ileostomy for an acute flare up of his ulcerative colitis. During this procedure, he received a completion proctectomy with restorative ileoanal pouch formation. He is otherwise fit and well, with no regular medication and is a non-smoker.

A standard midline approach for completion proctectomy was performed with a suitably healthy and viable terminal ileum. The terminal ileum is folded on itself approximately 15-20 cm in length. An enterotomy using diathermy is formed at the apex of the folded terminal ileum. A laparoscopic Echelon® gun is inserted via the enterotomy with each limb of the gun into a limb of the ileum and a side-to-side anastomosis is formed (Figure 1). Prior to firing the gun, we ensure no mesentery is caught in between the ileal limbs. This is repeated throughout the length of the pouch (Figure 2).

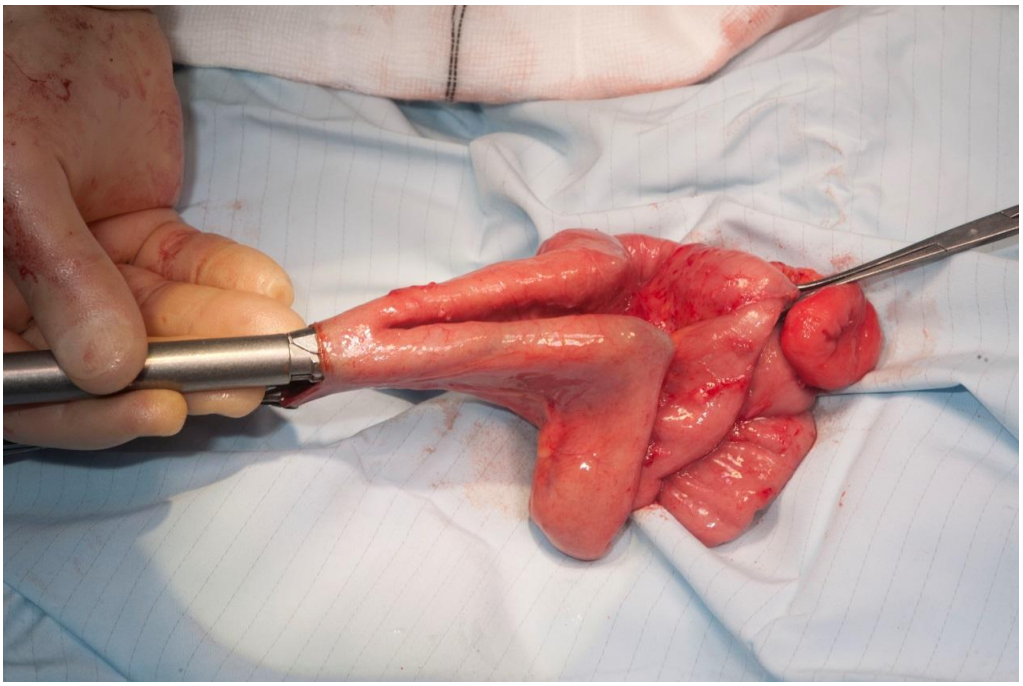

Figure 1: Laparoscopic Echelon® gun on the first firing

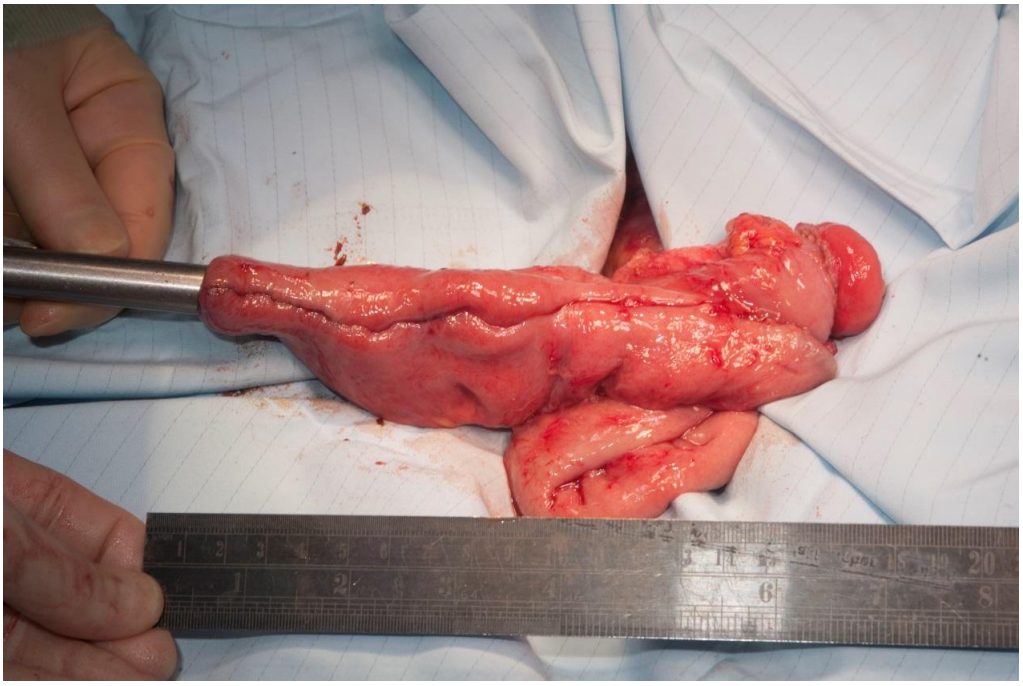

Figure 2: Laparoscopic Echelon® gun on consequent firing without any bunch up of ileum proximally

Discussion

The patient successfully recovered from his procedure without any post operative complications.

We believe this technique is superior as the length of the pouch is frequently longer than a standard linear stapler. On having to perform multiple firings on a standard linear stapler, the proximal limbs invariably bunch up (Figure 3) which may disrupt the integrity of the stapling line which could lead to an anastomotic leak or involvement of the mesentery. It invariably widens the enterotomy unnecessarily which is avoided with this technique.

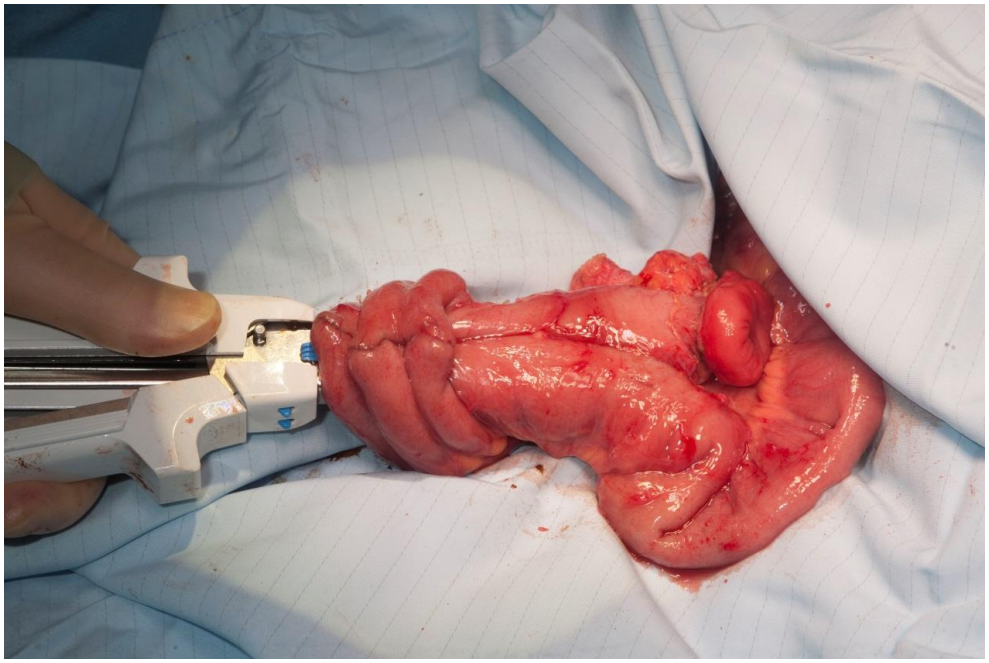

Figure 3: Using a conventional linear stapler, the ileal limbs bunch up on the second/third firings as the stapled ileum from the initial firings is drawn over the staple device

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