Self inflicted knife injury resulting in evisceration and serious risk to life

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Key words: Deliberate self-harm; anterior abdominal stab wounds; evisceration; short bowel syndrome; trauma laparotomy; bowel anastomosis

Introduction

The incidence of suicide and deliberate self-harm (DSH) has been rising [1]; however abdominal stabbing represents a minority [2]. We report a rare case of abdominal evisceration in a man who inflicted DSH, reportedly induced by physical and psychiatric illnesses [3].

Case presentation

A 53 year old man was transferred to the Colombo North Teaching Hospital with a self-inflicted stab wound to the central abdomen. It was a straight midline knife incision of 8cm, resulting in evisceration of bowel, omentum and torn mesentery (Figure 1).

He was on medication for a depressive disorder which was defaulted as he was diagnosed to have active pulmonary tuberculosis (PTB). Furthermore, he was suffering from peptic ulcer disease.

On admission he was pale and in stage III shock with active bleeding. Emergency laparotomy revealed that most of the jejunum, total ileum, caecum, ascending and transverse colons were avulsed off the mesentery and devascularized. Gross contamination of the peritoneal cavity was observed. The proximal 30cm and 30cm from the mid jejunum were deemed viable. Descending colon, sigmoid colon and rectum were uninjured. The right ureter, duodenum and solid abdominal organs were preserved. Non-viable intestines were excised followed by thorough irrigation with warm saline, and a jejuno-jejunal and jejuno-descending colon end to end anastomosis was performed. In total, including the duodenum, 80cm of small bowel was retained.

Postoperatively, he was treated with IV meropenem, metronidazole and IV Streptomycin for active PTB. His psychological condition was first managed with IM haloperidol. Oral clear fluids was started from the 1st day postoperatively and gradually increased within the next few days. Full feeding was established by the 7th day postoperatively. Except for a post-operative lung infection which was successfully treated, he had an early recovery without the development of short bowel syndrome (SBS). Oral anti-TB drugs and rapid acting oral olanzepin were started early as these are absorbed mainly in the stomach and duodenum. Nutritional support was offered to prevent macro and micro nutritional deficiencies.

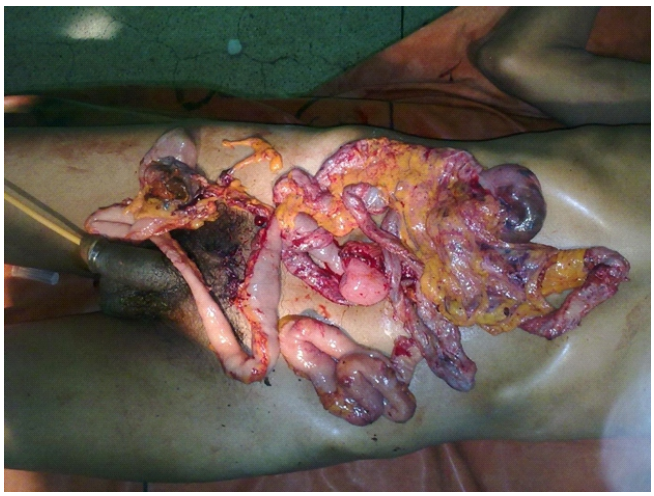

Figure 1. Eviscerated intestines and omentum on admission.

Discussion

This was an impulsive act by a patient with severe depression and psychotic features; as described in the literature, the majority were middle-aged men with an established psychiatric disease [1], primarily affective disorders.

The general preference in a trauma laparotomy is intestinal stomas as opposed to primary anastomosis.

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However our patient was resuscitated and stabilized well with ligation of the bleeding mesenteric vessels and there was no major vessel or solid organ damage. Although contaminated, there was no peritonitis or oedema settled in making primary fascial closure possible. According to the literature [4, 5], the primary anastomosis of intestines is safe in these circumstances. Furthermore, multiple jejunostomies may create high output fistulas causing fluid and electrolyte imbalance, and also as the patient is psychologically disturbed, stoma self-care is questionable.

Early nutritionist referral was done and enteral feeding was continued and well tolerated. SBS was not manifested as 80cm of the small bowel and the left colon was preserved. After acute care he was transferred back to the chest hospital for continuation of direct observational anti-TB treatment. His clinical records were updated and caregivers were educated with regards to the continuity of all medications to prevent such incidents in the future.

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Key Points:

- Self-inflicted abdominal stab injuries can be severe enough to cause major organ damage with serious risk to life especially when patients are psychologically disturbed.
- Multidisciplinary team management is beneficial for better patient care in deliberate self-harm.
- Manifestations of short bowel syndrome is minimal when sufficient length of colon is retained.
- Primary anastomosis of intestines is safe in a trauma setting in haemodynamically stable patients.