Unusually delayed wound complication of a remote APR: A case report

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Background

Abdominoperineal resection (APR) involves the resection of sigmoid colon, rectum, and anus with creation of an end colostomy

APR remains a mainstay of the surgical approach for treatment of low rectal and anal cancers

Techniques for wound closure include primary closure, mesh reinforcement, and musculocutaneous flaps[1-3]

Perineal wound complications are a particular challenge due to the large defect, weight-bearing location and propensity for movement and tension[2,4]

Primary closure is associated with a 13-55% rate of wound complications and may be higher after radiation therapy[1-3]

Case presentation

73 year old man with a history of rectal cancer s/p neoadjuvant radiation followed by APR 20 years prior

Presented to the ED with 6 hours of painful bulging from the perineum

On exam the patient had dehiscence of the perineal wound with evisceration of small bowel

Eviscerated bowel appeared ischemic with a short segment of necrosis and frank perforation

Imaging

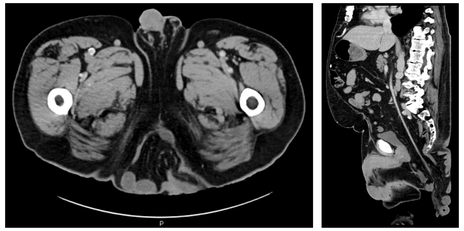


Fig 1: Representative slices from CT with contrast demonstrating small bowel evisceration through perineal defect s/p APR

Surgical course

Abdomen was explored by midline laparotomy

Small bowel resection was performed via a perineal approach

Remaining contents were reduced, ileocecal resection performed, and stapled ileocolic anastomosis created

Plastic surgery assisted with closure including placement of pelvic mesh and gracilis muscle flap to cover perineal defect

Postoperative course

Diet advanced as tolerated with return of colostomy function on postoperative day 4

Persistent perineal wound at 3 months prompted return to the OR for wound debridement and complex closure with plastic surgery

Subsequently healed well with local wound care

Discussion

High index of suspicion is needed to detect postoperative complications regardless of time since the initial operation

Extensive resections or reconstructions as exemplified by an APR predispose patients to wound-related complications[3,4]

Different closure techniques can be considered at the time of APR to minimize these complications[1-3]

Meta-analyses have demonstrated that primary closure is associated with two times greater rate of overall wound complications as compared with flap coverage[1,3]

Use of mesh remains controversial in the reduction of postoperative perineal complications[1,2]

Wound failure sequelae may necessitate adjuvant therapies such as negative pressure would therapy or reoperation[5,6]

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