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AFFERENT LOOP SYNDROME : A CASE REPORT

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ABSTRACT

Afferent loop syndrome is a mechanical complication that infrequently occurs following construction of gastrojejunostomy . we hereby presenting a case of affterent loop syndrome presented following long afferent loop associated with side to side small bowel anastomosis . A female patient aged 27 years who had undergone side to side anastomosis for small bowel gangrene 10 years back now presented with complaints of abdominal pain and vomiting . All the necessary investigations were done . CT abdomen showed thickening and dilatation of small bowel in right iliac fossa . During laparotomy perforation of long afferent loop of small bowel anastomosis was seen . Resection of excess long afferent loop was done with closure of stump .post operativeperiod and follow up was uneventful

KEYWORDS

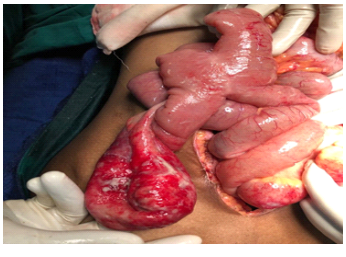
afferent loop syndrome; Side to side anastomosis ; laparotomy

INTRODUCTION

Afferent loop syndrome is a mechanical complication that infrequentyoccurs following construction of gastrojejunostomy. It may also occur following inadvertently left long loop in side to side small bowel anastomosis .The afferent loop ofthe intestine conducts bile , pancreatic juices and other proximal intestinal secretions towards the anastomotic site which provokes an acute event . The jejunal limb of afferent loop is subject to adhesion formation , internal herniation , volvulus , perforation , anastomotic obstruction and other etiologies of afferent loop syndrome . A case of afferent loop syndrome was treated in govt. stanley medical college and is presented in this report

Case Report

A 27-year old female patient presented to surgical op with the complaints of abdomen pain for past 3 days, insidious onset which was progressively increased in severity , intermittent in nature , dull aching type without any radiation with no history of relieving and aggravating factors . patient also has history of nausea , vomiting with 3 episodes per day with loss of appetite .patient had history of small bowel resection and anastomosis for small bowel gangrene done 10 years back .there was no other significant history and on examination there was lower abdomen guarding and tenderness . CT was done showing thickening and dilatation of small bowel in right iliac fossa . The patient was taken to the operating room for anexploratory laparotomy with a presumed diagnosis of hollow viscus perforation . Operative findings included a side to side jejunal anastomosis with gangrenous long afferent loop with perforation . The patient underwent resection of excess afferent loop with primary closure of stump . Postoperatively she progressed well, tolerated her diet, and was discharged home on the tenth postoperative day. She was well at the 4-week follow-up examination, having completely recovered from her surgery.



DISCUSSION

Afferent loop syndrome is an intermittent partial or complete mechanical obstruction of the afferent limb of a gastrojejunostomy.

The syndrome classically refers to obstruction of the upstream limb of a side-to-side gastrojejunostomy, but has also been used to refer to the biliopancreatic limb of a Roux-en-Y gastrojejunostomy. It can be seen after partial gastrectomy ,Billroth IIgastrojejunostomy ,gastric bypass,Roux-engastricbypass, pancreaticoduodenectomy, inadve rtently left long loop in side to side small bowel anastomosis

Afferent loop syndrome is not an uncommon postoperative complication, and one study has estimated that it occurs in 13% of post-pancreaticoduodenectomy patients . Afferent limb syndromes have decreased in incidence with newer surgical techniques to decrease the size of the limb.Patients usually present with epigastric pain, abdominal distention, nausea, and potentially bilious vomiting. It has been classified as acute (<7 days postoperative) or chronic (>7 days postoperative). Bilious vomiting is presumed to occur from regurgitation of bilious contents in the afferent limb into the stomach after release from intermittent obstruction.

Possible causes of afferent loop syndrome include kinking at the anastomosis, radiation stricture, internal hernia, or recurrent tumour at the anastomosis.In some sources, "afferent limb" is used to refer the stump of small bowel upstream from the the Roux limb; some sources use it to refer the biliopancreatic limb; ".

In the present patient, volvulus of the afferent limb caused afferent loop syndrome. In general, the length of jejunum in jejunojejunalanastomosis with stump afferent loop is usually short . However, in the present patient, it was longer than usual, This may have facilitated the development of volvulus. This case emphasizes the importance of the length of the afferent limb in small bowel anastomosis . As it is easy to shorten the afferent limb, especially for side to side anastomosis, fashioning an appropriate length for the afferent limb can potentially prevent this complication.

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