Austin Journal of Surgery

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Austin Publishing Group

Perspective

Giant Sigmoid Diverticulum (GSD) – Is There a Case for Conservative Management?

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Received: April 25, 2019; **Accepted:** May 08, 2019; **Published:** May 15, 2019

Keywords

Colonic Diverticulum; Giant; Management

Perspective

Colonic diverticulosis is common. Although it is described as more prevalent in the western population, its incidence has been on the rise. Giant colonic diverticulum refers to a colonic diverticulum with a diameter more than 4 cm, although size may vary. It was first described by Bonvin & Bonte [1]. Incidence of this rare entity is about 1%. Over 195 cases of GCD have been reported in literature. Here we describe the relevant pathology, clinical presentation and management of this complex condition.

Mcnutt et al in their review in 1987 describe three various types of GCD. These include the following [2,3]:

Type I –pseudodiverticulum herniating through defect in mesenteric border of colonic wall (22%)

Type II –inflammatory walled off abscess cavity (66%)

Type III – true colonic diverticulum (12%)

GCD is very similar to other colonic diverticula in terms of their presentation. Their common modes of presentation are with abdominal pain, constipation, sensation of abdominal mass, nausea and vomiting, loose stools and per rectal bleeding. Among these, the most common is abdominal pain (67%). About 75% of these patients would have a palpable mass on physical examination [4]. CT scan abdomen and pelvis remains the best modality of investigation in the diagnosis of GCD [5].

Complications associated with GCD are not very different to other colonic diverticula in terms of incidence or severity. Complications often include the following: perforation (either free or localised), bleeding, abscess formation, phlegmon, stricture, volvulus, intestinal obstruction, infarction, fistula formation and very rarely adenocarcinoma (2%) [6].

The most common complication from a GCD is colonic perforation. In a review by Nigri et al, giant diverticular perforation was observed at diagnosis or at operation in approximately 26.5% of the cases. Such perforations can either be localised or generalised [7]. Because of the extensive array of clinical features and possibility of complications associated with giant colonic diverticulum, management continues to be a great task.

Discussion

GCD is rather an unusual and infrequent pathology that has various modes of presentation and associated complications. Hence the importance of apt diagnosis and management. Management differs according to the presentation. In an emergent setting with frank peritonitis, Hartmann's operation is the preferred procedure. The obvious disadvantage with Hartmann's operation being the need for a second operation, which can be quite challenging. From literature, it can be observed that, the preferred treatment of uncomplicated GCD is colonic resection involving the diverticulum with primary colonic anastomosis, with or without a temporary stoma. Although procedures like diverticulectomy have been reported, they are often associated with high risk of post-operative morbidity such as anastomotic dehiscence. Mortality secondary to complications from diverticular disease are very infrequent(1 in 10,000 cases of colonic diverticulosis) [8]. In patients with complicated diverticular disease though, operative mortality can be as high as 20% [9]. Morbidity and mortality associated with operative intervention in the setting of GCD is likely to be much greater. Operative mortality in uncomplicated GCD is about 5% [10]. With significant advances in interventional radiology, most complications of colonic diverticula can now be managed non operatively, except in the cases with frank peritonitis, high risk individuals or those patients with immune suppression [11,12].

Conclusion

Giant colonic diverticulum, although rare, is not without its complications. However, the risk of complications is negligible and with the availability of interventional radiology, we consider that there is a case for non-operative management of patients with uncomplicated GSD and some complicated cases, similar to other colonic diverticulae. Further studies are required to determine the optimal management in these patients with a rather unusual and uncommon problem.

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Citation: Murugesan JR, Fulham SB and Engel A. Giant Sigmoid Diverticulum (GSD) – Is There a Case for Conservative Management?. Austin J Surg. 2019; 6(12): 1191.

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Austin J Surg - Volume 6 Issue 12 - 2019
ISSN : 2381-9030 | www.austinpublishinggroup.com

Citation: Murugesan JR, Fulham SB and Engel A. Giant Sigmoid Diverticulum (GSD) – Is There a Case for Conservative Management?. Austin J Surg. 2019; 6(12): 1191.