

ABSTRACT

Background

Bowel obstruction may be the result of a mechanical obstacle or a failure of the bowel to move properly. Computed Tomography (CT) to be a valuable technique for imaging intestinal obstruction. Advantages of CT imaging are accurate demonstration of the site, level and cause of obstruction, presence or absence of adverse features such as ischemia, volvulus or closed loop obstruction. CT allows for smaller and site specific incisions with improved wound related outcomes.

Methods

A prospective observational study on 35 patients from radiology department of Woodlands Multispeciality Hospital, Kolkata with clinical features of intestinal obstruction to show the utility of CECT in diagnosing the presence, level, degree, and cause of intestinal obstruction. CT scan was done in all the patients with Siemens 768 Slice CT Scanner. The axial sections were reconstructed in coronal and saggital planes to determine site and cause of bowel obstruction.

Results

The commonest cause of intestinal obstruction in adults in this study series was adhesions. 35 consecutive CT scans (29 affected cases; 12 women; mean age 52 years, range 25-80 years) were included in the study. The most common cause of intestinal obstruction in our series was inflammatory, stricture, malignancy, perforation, hernia, etc. Morbidity and mortality from small bowel obstruction in elderly is high.

INTRODUCTION

Bowel Obstruction may be the result of a mechanical obstacle or a failure of the bowel to move properly. Obstruction leads to abdominal distention as a result of gas and fluid accumulation in the intestine. It is one of the leading causes of admission in general surgical emergency with variable outcomes. Intestinal obstruction is a common surgical problem; it is essential that this clinical condition is treated properly.^[1]

Computed Tomography (CT) of the abdomen with intravenous contrast (CECT) has become an essential tool in the diagnostic workup of patients with suspected bowel obstruction. Oral administration of contrast is not required in high grade obstruction where retained fluid act as a natural negative contrast agent.^[1] However, in cases of partial obstruction administration of oral contrast medium given 60-120 minutes before scanning is preferred for identification of abnormalities in mildly distended loops^[2]. CT enteroclysis is preferred in cases of low grade partial obstruction.

Diagnostic imaging is an essential aspect of the modern management of both large bowel obstruction (LBO) and small bowel obstruction (SBO). Most patients with SBO are treated successfully with nasogastric tube decompression.^[1] Complete or high-grade obstruction indicates no fluid or gas passes beyond the site of obstruction. Incomplete or partial obstruction indicates that some fluid or gas pass beyond the obstruction.^[3] CT scan was useful to know the cause behind the acute abdominal pain. Significant progress has been made in the diagnosis and management of bowel obstruction in recent years.

Small bowel obstruction is four or five times more common than large bowel obstruction and the potential cause differs substantially in small compared to large bowel obstruction. There is an