Should routine contrast study be a norm before stoma reversal? A retrospective study of patients with temporary ileostomy after emergency laparotomy

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Should routine contrast study be a norm before stoma reversal? A retrospective study of patients with ileostomy after emergency temporary laparotomy.***IntroductionA large number of patients with acute abdomen undergo emergency laparotomy. Many of these patients are found to have pathologies of small bowel where a primary repair is not suitable. A temporary ileostomy in such cases may not only be life saving but also a better option [1, 2]. In developed countries most temporary ileostomies are made to protect a distal anastomosis and it may be prudent to do a contrast study before stoma reversal to check for anastomotic leak or stricture [3]. This may not be true for all our patients where stoma is made for a different indication. At some institutes a routine contrast study is not done at all before reversal of ileostomy [4], although it is a routine practice at our institute. It burdens the hospital resources [4], exposes patients to radiation and increases the cost to patient. The waiting period for a contrast study adds considerably to the overall waiting time. Delay in stoma reversal is associated with increased morbidity [5] and affects quality of life [4]. Early closure is associated with less stoma related complications [6]. This study tries to examine the reports of contrast study of ileostomy patients who underwent stoma reversal subsequently. The surgical records of these patients at time of the index operation will also be scrutinized especially for surgeon-documented intra operative findings. A statistically significant correlation between the two findings will be sought. If the findings correlate then it may be reasonable to reverse stomas without routine contrast study in selected patients where the surgeon has clearly documented a normal distal bowel. The study will also look at other parameters that have a bearing on patient care and the institution. Studies addressing similar issues in such patients with temporary ileostomy could not be found on literature search.

Objectives

The study aims to review the records of patients who underwent temporary ileostomy after emergency laparotomy at our institute with the following objectives:

To investigate the hypothesis that it is reasonable to proceed with reversal of stoma without a routine contrast study in selected patients where the surgeon has clearly documented absence of any gross disease in distal bowel. To study the correlation between surgeonreported operative findings and the contrast study findings. To study the percentage of normal and abnormal contrast study reports. To study the average time interval between ileostomy formation and reversal. To study the average waiting period for undergoing contrast study after index operation.

Methodology

Place of workThis study will be conducted in the Department of Surgery of a teaching tertiary care hospital.

Study group

Medical records of patients who underwent contrast study during January 2010 to December 2011 (i.e. two years) as a prerequisite for stoma reversal.

Inclusion criteria

Patients who underwent emergency laparotomy and a temporary ileostomy (end, loop, divided loop ileostomy) was made.

Exclusion criteria

Patients in whom a temporary ileostomy was made but did not undergo a contrast study.

Sample size

The study intends to include a minimum of fifty (50) cases that will fulfill the above criteria.

Study design

This study is of a retrospective analytical case series design.

Study technique

The contrast study reports will be obtained from the records section of Department of Radiology. The corresponding patient record files will then be retrieved from the Medical Records Department. With all these resources data will be recorded in a structured case record proforma [ANNEXURE I].

Data analysis

The data collected will be analyzed and various associations will be seen to fulfill the objectives of the study. The surgeon's operative and clinical findings will then be correlated with the report of contrast studies. Analysis with appropriate statistical tools to fulfill the objectives of the study will be done.

*Quality control*Data extraction and analysis will be done by a single investigator to maintain consistency and quality.Ethical considerations and ConfidentialityInformation about study subjects will be kept confidential. An approval by the Ethics Committee of the institute will be taken.

Implications

If a correlation is seen between surgeon-reported operative findings and the contrast study findings then it will be more practical to proceed with reversal of stoma without a routine contrast study in selected patients without compromising care to the patient. This will reduce the waiting time for stoma reversal, decrease stomas related morbidity, reduce unnecessary radiation exposure and may have a positive impact on quality of life of these patients. The workload on healthcare professionals will be reduced and the valuable hospital resources can be channelized towards other aspects of patient care.

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