

## Primary Repair Vs Colostomy In Colonic Injuries – A Two Year Experience At Lahore General Hospital And Mayo Hospital, Lahore

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The object of the study was to compare the results of primary repair in colonic injury with colostomy. 200 patients were selected, 100 being allocated to each group. All patients underwent laprotomy mostly indicated by peritoneal irritation. Most of the injuries were of the transverse colon. 22 patients underwent exteriorization of the repaired part. Right hemicolectomy and ileocolic anastomosis was done in 30 patients. A significant morbidity occurred from wound sepsis, abdominal abscess formation and postoperative pulmonary complications. 22 patients suffered from burst abdomen and 10 developed faecal fistulas. 4 patients died. Prolonged mean hospital stay and more incidences of postoperative complications occurred in colostomy group. This shows that primary repair of colonic injuries should be done in selected cases instead of colostomy in each case.

**Key words:** Colonic injury, primary repair, colostomy

Injuries to the colon continue to be a vexing problem for the trauma surgeon<sup>1</sup>. The ubiquitous placement of the colon in all quadrants of the abdomen places it at risk in almost all patients with abdominal injury. The microbiological flora of the colon make colon injuries the most common cause of sepsis in the abdomen after penetrating wounds. No area within the field of surgery is static. This holds particularly true for the managements of the colonic injuries. It is undergoing revolutionary treatment like repair with exteriorization and one stage primary repair of colonic injuries is replacing covering colostomy. This has been largely due to increasingly clear understanding of healing process in the colon and early presentation of the patients to the hospitals for treatment. Availability of modern diagnostic CT scanning has helped a lot<sup>2</sup>. These all factors have decreased the time interval between injury and surgery, probably the most important deciding factor regarding the management of colonic injuries. In this study the results have been analyzed and conclusions have been presented to point out the areas where improvements can be made to reduce the morbidity and mortality in cases of injuries to the colon.

### Patients and method:

A prospective study was carried out over a period of two years from September 2003 to September 2005 at Lahore General Hospital and Mayo Hospital Lahore. During this period all colonic injury patients admitted in surgical wards were considered eligible for this study. Patients were picked up randomly. The management protocol remained unchanged. Preoperative investigations were performed on all cases except where signs of major vascular bleed demanded immediate exception.

Inclusion criteria were history of abdominal trauma either penetration or blunt, history of thoracic trauma with signs of peritoneal irritation, history of haematuria and bleeding per rectum after trauma, evisceration after trauma, history of penetrating buttock trauma with signs of peritoneal irritation, positive diagnostic peritoneal lavage.

Exclusion criteria were children above age of 12 years, superficial abdominal wound managed conservatively, patients died before surgery, associated head injuries and patients in which no colonic injuries identified on exploration. For study purpose the management of patients was divided into following phases:

Phase: 1 preoperative resuscitation, and investigations.

Phase: 2 operative procedures

Phase: 3 postoperative care in the ward

Phase: 4 post operative follow-up at out patient department after discharge from the ward

Phase: 5 only for those patients who were readmitted for colostomy closure

**Phase: 1** categorization of patients and appropriate management. Upon arrival in emergency department, a brief history and examination was done for initial assessment to define the extent and severity of injury. Two large bore intravenous catheters were inserted and blood was drawn and sent for grouping and cross matching. Balanced salt solutions were started and monitoring was done specially in patients with previous history of cardiac and renal diseases. Blood complete, blood urea, blood sugar, electrolytes, blood sugar (random) were sent to the laboratory. X- ray chest and abdomen both erect and supine were obtained. ECG was done if the patient was of above 40 or previous history of cardiac and renal disease. Indications of laprotomy were evisceration of viscera, patients with fire arm injury to the abdomen, an x-ray evidence of internal abdominal visceral injury, stab wound with signs of peritonism, positive diagnostic peritoneal lavage, profuse and continuous bleeding from the wound, wounds of lower thorax with signs of peritoneal irritation, in stab victim where exploration of the wound under local anesthesia showed peritoneal penetration. Broad spectrum anti biotics were given. A combination of Ampicilline, gentacin and metronidazole were used except in patients allergic to any of these. In renal patients Cephalosporins and metronidazole were administered. Antibiotics were continued post operatively till these were required or

