

OUTCOME OF EARLY ORAL FEEDING AFTER ELECTIVE COLONIC ANASTOMOSISSushant Kumar¹, Pranay Kunal², Deepak Yadav³, Swetabh⁴**HOW TO CITE THIS ARTICLE:**

Sushant Kumar, Pranay Kunal, Deepak Yadav, Swetabh. "Outcome of Early Oral Feeding after Elective Colonic Anastomosis". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 67, August 20; Page: 11643-11647, DOI: 10.14260/jemds/2015/1679

ABSTRACT: OBJECTIVE: Outcome of early oral feeding after elective colonic anastomosis. **STUDY DESIGN:** Descriptive case series. **PLACE & DURATION OF STUDY:** Department of Surgery Mata Gujari Medical College, Kishanganj, Bihar, India. From June 2012-March 2014. **METHODOLOGY:** Detailed preoperative evaluation of the selected patients was done. Patients with malignancies, heart disease, poor general conditions, distal loop obstructions were excluded from the series. In selected patient's proper history, physical examination and base line investigations were done. Limited bowel preparation was done in all the patients. Postoperatively 15-50ml of sips was allowed 2 hourly after recovery from anesthesia. Free oral fluid intake was allowed on postoperative day-1, semisolids on day-2 and day-3 as tolerated and full oral diet allowed on day-4. In case of two episodes of vomiting and absence of bowel sounds, patients were kept nil by mouth and nasogastric tube was inserted. **RESULTS:** Total 68 patients were selected, out of which 46(67.64%) were males and 22(32.36%) females (M.F.09:1). The age range was from 28 year to 76 year with mean age of 47.5+2.4 year. Passage of first flatus was observed between 2 to 6 days (mean 2.8 days), and the time of first passage of stool was 3-8 days (mean 4.6 days). Twelve (17.64%) patients did not tolerate feeding. Intolerance to feed results into vomiting and abdominal distension. Postoperative complications included wound infection (10.29%), electrolyte imbalance (4.41%), respiratory tract infections (2.94%), anastigmatic leaks (1.47%) and wound dehiscence (1.47%). The hospital stay was 3-8 day (Mean 5.4 day). **CONCLUSION:** Early oral feeding after elective colonic surgery was safe and well tolerated by majority of the patients.

KEYWORDS: Early oral feeding, Enteral feeding, Colonic anatomizes.

INTRODUCTION: After abdominal surgery, the passage of flatus or bowel movement indicates the resolution of postoperative ileus and it gives clinical evidence to starting an oral diet.⁽¹⁾ In these patients adequate nutrition has always been a major goal for the treating surgeon. It was feared that due to early feeding, nausea and vomiting would lead to wound breakdown, aspiration pneumonia or anastomotic complications. Usually nasogastric aspiration started after surgery to avoid such complications but study suggest that the,⁽²⁾ routine use of nasogastric tube after elective abdominal,⁽³⁾ and colorectal surgery,⁽⁴⁾ may not be necessary. The delay in starting feeding has now been questioned because many studies suggest that early feeding is well tolerated. In last decade, studies revealed that early feeding is safe,^(5,6) and not damaging to the anatomises. Early enteral feeding in surgical patients has the advantage of reducing septic complications and overall morbidity when compared with parenteral nutrition.^(7,8)

Koehler H, and his colleagues have demonstrated that a postoperative stay of 2-3 days following colonic surgery may be achieved without increase in complication rate. This is done by using a combination of preoperative patient information, avoidance of fluid overload, use of epidural

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catheter, postoperative analgesia, early feeding and ambulation.^(9,10,11) The aim of this study was to assess the safety of early feeding following elective colonic anastomosis.

METHODOLOGY: This study was conducted from June 2012 to March 2014, in the department of surgery, Mata Gujari Medical College, Kishanganj, Bihar, India. A total of 68 patients were included and admitted through OPD. Patients with poor general conditions, heart disease, malignancies and distal loop obstruction were excluded from the study. Preoperative evaluation included history, physical examination and base line investigations. Complete blood count, blood sugar, blood urea, Serum creatinine, serum electrolytes, HIV1&2, HBsAg and routine urine were done. X-ray chest and ECG is done to assess their fitness for the general anaesthesia. Abdominal ultrasound, CT scan of abdomen and barium enema/distal logogram was also done as per need to exclude recurrence or residual disease and to demonstrate patency of distal bowel.

Bowel preparation was done in all the patients in the form of normal saline wash to distal loop 24hrs before surgery. Oral lactulose (15ml) given 12hr before surgery in night and rectal enema were given 4hr before surgery. Postoperatively 15-50 ml of sips was allowed after complete recovery from general anaesthesia. Tolerance to feed is assessed in terms of vomiting and abdominal distension. Free fluids were allowed on 1st postoperative day, semisolids on 2nd and 3rd day. Patients were allowed full oral diet on 4th postoperative day with the advice of taking small frequent meals. Patients were monitored for vomiting, abdominal distension, duration of ileus, tolerance of regular diet, hospital stay and complications. In case of two episodes of vomiting and absence of bowel sounds, patients were kept fasting and nasogastric tube was inserted.

They were treated conservatively till vomiting subsided, bowel sounds reappeared and abdominal distension settled down. Patients were discharged from hospital after complete recovery in the form of tolerating oral fluids and diet and were fully mobilized. Patients were advised to visit OPD after 10 days for general assessment and removal of stitches. Data were collected from record room where it was coded encoded and statistically analyzed using International Business Machines Statistical Package for the social science (IBM SPSS) version 20.0.

RESULTS: Out of total 68 patients, 46(67.64%) were males and 22(32.36%) females with M:F of 2.09:1. The age range was 28 year to 76 year with mean age of 47.5+2.4 year. The time of passage of first flatus ranged from 2 to 6 days (mean 2.8 days) and the time of first passage of stool ranged from 3-8 days (mean 4.8 days). Twelve (17.64%) patients did not tolerate feeding and developed vomiting and abdominal distension. These patients were treated conservatively with nil by mouth and intravenous (I/V) fluids.

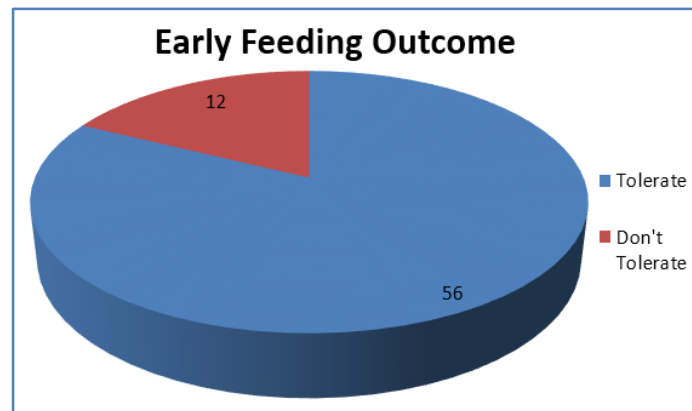
All of them settled down within 48 hours. Wound infections presents in 7(10.29%) patients which was treated with antiseptic dressing, drainage of pus and proper antibiotics. Electrolyte imbalance was noted in 3(4.41%) patients which results in abdominal distention, was corrected with proper fluid. Two (2.49%) patient develop respiratory tract infection with basal crepts and tachypnoea. These patients were managed with physiotherapy, nebulization and antibiotics. One (1.47%) patient has wound dehiscence which was treated with secondary suturing. One (1.47%) patient has anastomotic leak which was kept on conservative management. Total hospital stay was 3-10 days (mean 5.8 days). No mortality observed in this series.

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TABLE: POSTOPERATIVE COMPLICATIONS (n=68)		
	COMPLICATIONS	No. Of Patients Percentage
1	Vomiting	08 11.76%
2	Abdominal Distension	06 8.82%
3	Wound Infection	07 10.29%
4	Electrolyte imbalance	03 4.41%
5	RTI/ Aspiration Pneumonia	02 2.49%
6	Wound Dehiscence	01 1.47%
7	Anastigmatic Leak	01 1.47%

DISCUSSION: Postoperative ileus is defined as decreased bowel sounds, abdominal distension and delay in passage of stool and flatus. There are many causes of postoperative ileus such as postsurgical stress, manipulation of the bowel, anaesthesia and use of opioids.⁽¹²⁾ Traditional postoperative protocol was to use nasogastric tube for gut decompression but we use it only in selected cases who did not tolerate early feeding. In our series the mean time of 1st passage of flatus was 2.8 days and 1st passage of stool was 4.8 day These figures are comparable to those reported by Naked AE et al.⁽¹³⁾

Fifty six (82.35%) patients tolerated early feeding in our study as compared to Difronzo LA et al, who reported that more than 80% patients tolerated early feeding after colonic anastomosis. In our study the intolerability of feeding was not significant in any gender while he noted that male were comparatively intolerant to oral feeding.



Abdominal distension and vomiting have been reported in other studies after resuming early oral feeding e.g. 28% by Gutillo G et al and 40% by Schilder JM et al^(15,16). Post-operatively anastomotic leak occurred in one (1.47%) patient in our series which is comparable to other reports. Other postoperative complications which occurred in our series were widely acceptable when compared with other studies.

In our study the mean hospital stay was 5.8 days which was slightly longer than 3.9 days by Difronzo LA et al.⁽¹⁷⁾ The study of ferret VF et al showed that early postoperative feeding decreased the risk of infection.⁽¹⁸⁾ They also noted that both postoperative ileus and hospital stay are reduced without increasing mortality and morbidity. In our study only two patients developed respiratory tract infection. There was no hospital mortality in our series as is reported in other studies.

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CONCLUSION: Early oral feeding after elective colonic anatomises is safe and well tolerated by majority of patients with insignificant complications.

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FINANCIAL OR OTHER

COMPETING INTERESTS: None

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Date of Submission: 30/07/2015.
Date of Peer Review: 31/07/2015.
Date of Acceptance: 13/08/2015.
Date of Publishing: 18/08/2015.