

Review on Surgical Management of tuberculous small bowel strictures

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I. Introduction

Tuberculosis is a common and major health hazard in India. Intestinal tuberculosis is still very common in India. Intestinal tuberculosis either occurs as a primary form due to the ingestion of milk contaminated by bovine strain of *Mycobacterium Tuberculosis* or secondary to the pulmonary Tuberculosis. The diagnosis of intestinal tuberculosis in early stage remains very difficult. Tuberculous strictures of the small bowel usually multiple, present as subacute or acute intestinal obstruction or chronic giving rise to malabsorption syndrome. Laparotomy is required for diagnosis and in cases with acute obstruction. A number of surgical procedures are available to deal with small bowel strictures but simple procedure is stricturoplasty.

Material and Methods:-

A total number of twenty five (25) strictures in fifteen patient (15) studied in N.M.C.H. Patna in department of surgery during Jan'15 to Feb'18. Detailed history, including age, sex and with special reference to their abdominal pain and altered bowel habits and concomitant pulmonary tuberculosis operative findings were noted regarding the site, nature and number of lesion. Specimen for histopathological study taken from- parietal peritoneum, mesenteric lymphnode or resected segment of intestine. All the patient their investigated for tuberculosis elsewhere in the body. Patient were followed monthly in outdoor.

Observation:

A total number of thirty five (35) strictures in fifteen cases studied in this series. All the patient were 22 to 45 years. Male to female ratio was 6:4. Confirmative diagnosis of intestinal tuberculosis has established after operation.

Table 1 : AGE AND SEX DISTRIBUTION OF CASES

AGE	MALE	FEMALE
< 20	1	2
21-40	4	6
>40	1	1

Table 2: LOCATION OF STRICTURES

	MALE	FEMALE
1. Single Stricture in terminal ileum	1	2
2. Single Stricture in proximal ileum	1	1
3. Multiple Stricture in ileum	4	6
4. Multiple Stricture in throughout the small bowel	2	3
5. Combined ileocaecal and ileal	1	--

Table 3: CONCOMITANT CLINICAL FEATURES IN PATIENT

1.	Malnutrition and weight loss	17
2.	High ESR	06
3.	Suggestive chest X-ray	04
4.	Cervical lymphadenopathy	01

Table 4: PRESENTING FUTURES

1.	Emergency admission for acute intestinal obstruction	12
2.	Elective admission for pain abdomen weight loss, Vomiting, distension etc.	03

Operative procedure

A total number of 25 strictures in 15 cases found in this series. The diagnosis in early stage remains very difficult due to vague and nonspecific symptoms patient remains undiagnosed for prolonged times. Neither sonography nor x-ray confirm diagnosis. Most of the patient comes with acute intestinal obstruction. So diagnosis is often made on operation table.

The surgical procedure depends on the site, type and extent of lesion. The commonly performed procedure was stricturoplasty which were performed in 20 cases. The procedure has been found to safe, simple and effective in relieving obstructive symptom. In stricturoplasty the bowel is opened lengthwise by a 5-6 cm incision along the antimesenteric border and with the stricture at its mid point.

Closure is done by a two layers transverse repair. The maximum number of stricturoplasty in any patient was 04.

Table 5: SURGICALS PROCEDURE PERFORMED

1.	Stricturoplasty	20 Cases
2.	Segmental small bowel resection with end-to-end Anastomosis	10 Cases
3.	Right Hemicolectomy	01 Case
4.	Bypass procedure	01 Case
5.	Only adhesiolysis	03 cases

II. Discussion

Twenty five tuberculous intestinal strictures presented as intestinal obstruction during two year of study in surgical units N.M.C.H. Patna. Intestinal tuberculosis has serious impact on economy and production as working class becomes sick and ill individual. Most of the patients in our study were below 45 years, female were more commonly affected than male. Probably due to male dominant society where females are restricted to their homes and not brought to the hospitals for treatment at the early stage of diseases'.

Surgical procedure carried out in our series was a more conservative- stricturoplasty. The procedure is simple, quicker, less traumatic and applicable anywhere from pylorus to ileocaecal junction. The procedure can also be undertaken in active lesions.

Segmental resection of small bowel with end-to-end anastomosis was inevitable in long strictures and multiple strictures in short segment. Due to sacrifice of the terminal ileum malabsorption, syndrome develops.

Right hemicolectomy was performed in only one case where strictures close to ileocaecum and had perforation of the intestine due to strictures. Right hemicolectomy removes a large portion of gut, the most important being the ileocaecal valve, resulting in malabsorption, looseness of stool and diarrhea.

Release of adhesions was performed in 3 cases, under lying stricture was passable, patient get relief from obstruction.

Bypass procedure were done in one case in which ileum was anastomosed to transverse colon without resecting the diseased ileocaecal segment as patient was critical.

Two patient died in our study due to enterocutaneous fistula both patient developed uncontrolled sepsis and multiple organ failure.

III. Conclusion

Tuberculous strictures of small bowel are common cause of intestinal obstruction. Due to ignorance and malpractice, patient usually present late. Clinical features are usually obstructive or non-specific, vague and accurate diagnosis always established at operation. Surgical procedures are performed according to operative finding and patients condition. However, the recent trend towards less radical surgery. Stricturoplasty is safe, simple and easy operation particularly useful at small peripheral hospitals and limited resources. Chemotherapy has no substitute and essential after surgery.

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