

# LAPAROSCOPIC MANAGEMENT OF MECHANICAL INTESTINAL OBSTRUCTION DUE TO BANDS

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Since its inception as a wonderful tool to perform cholecystectomies the horizon of Laparoscopic surgery has expanded tremendously and a wide variety of elective surgical procedures are being performed, however the use of Laparoscope for emergency surgery is not practised with abundance and in most of the cases it only assumes a diagnostic role.

During the past thirteen months we have successfully managed seven cases of mechanical intestinal obstruction which were due to the formation of bands. We did diagnose six other cases of mechanical intestinal obstruction due to strictures or growth in the gut, but we could not do them totally Intracorporeally, rather they were lap assisted resection anastomoses where the loop of gut having the pathology was brought out on the anterior abdominal wall, the resection and anastomoses was done and the loop of gut was later put back in the abdomen.

## MATERIALS AND METHODS

A total number of 7 patients 2 males and 5 females are included in this study. All the patients except one male have had previous abdominal surgery done on them.

The break up is as follows :

Abdominal Hysterectomy	2
Appendicectomy	1
Previous open cholecystectomy	2
Resection anastomosis if a tuberculous stricture	1
Total :	6

The single male patient who did not have any previous surgery had history of hypertension and had

been on thiazide diuretics and beta blockers for the last four years and two months.

All the seven patients presented with the classical history of intestinal obstruction i.e. pain, vomiting, distension and constipation and were diagnosed, clinically to have intestinal obstruction. This was confirmed on radiography and on ultrasonography.

All seven cases were initiated as diagnostic laparoscopic procedures and obstruction by a band was confirmed and then the definite procedure was carried out.

One must be careful that all pre-operative preparations i.e. correction of fluid and electrolyte balance. Nasogastric aspiration, antibiotic cover should be provided.

After creating pneumoperitoneum a 10 mm Trocar Cannula is inserted through the infraumbilical region and the telescope is introduced and diagnostic laparoscopy is performed.

The foremost step in the management is to identify the site and cause of obstruction. In five of the seven cases the obstructing band was a single thick fibrous band extending from the anterior abdominal wall to the mesentery of small bowel. In two cases multiple small bands extending from the abdominal wall to the small gut itself were the cause of obstruction.

The proximal dilated loops are sorted out and they are followed distally to the site of obstruction, and then the distal collapsed loops are identified.

The obstructing band is manipulated and carefully examined, most of the bands are fibrofatty in nature and do not contain large blood vessels, but if large blood vessel is identified then the band above and below the site of cut has to be clipped before cutting it, However if the blood vessels in the band

are small then they can just be cauterized and cut simultaneously.

A second Trocar and Cannula (5 mm) is introduced now under vision in any of the four outer quadrants of the abdomen in the mid clavicular line. The site of introduction of cannula varying according to the site of obstruction.

A third Trocar and Cannula (5 mm) is introduced exactly on the same site as the second one but on the opposite half of the abdomen.

The placement is now such that if the three points of Trocars introduction are joined they form an equilateral triangle.

Through the second cannula a Reticulator Scissors is introduced and through the third cannula a 5 mm grasper is introduced, with the help of this grasper the obstructing band is pulled taught.

The reticulator endoshear is connected with 40 Watts soft current for cautery. The band is first cauterized and then cut. After the division, the cut ends of the band must be examined for bleeding.

We as a routine leave 100 ml of 70% Dextran intraperitoneally to prevent further adhesions.

## RESULTS

The success of the operation is immediately seen as we can see the distal collapsed loops expanding under vision. The results of operating on these cases have been remarkable. The relief was dramatic and the return of the bowel activity was between 3-6 hours. Needless to say that there are minimal puncture wounds on the abdomen which heal rapidly and the patient is back to normal within hours.

A careful training and case selection will ensure that this procedure will continue to be safe, efficacious and cost effective. And it will provide better means of diagnosing and treating even more complex forms of intestinal obstructions.

## REFERENCES

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