MATERIAL AND METHODS

The present study includes cases of small and large bowel volvulus and mobile caecum admitted in M.L.B. Medical College, Hospital, Jhansi during June 1968 to August 1989. Total number of cases included in this study are 100. The cases of acute intestinal obstruction due to volvulus which were confirmed by taking detailed history, clinical examination, investigations, X-rays and exploratory laparotomy, and cases of mobile caecum confirmed during exploratory laparotomy was the criterion for selection of cases for this study. All the cases included in this study were diagnosed clinically and radiologically. The final confirmation and assessment of aetiological factors was done by laparotomy.

All the cases were studied in the following manner:

I - DETAILED HISTORY:

(1) Particulars of the patient: It included name, age, sex, caste and address.

(11) Dietary habits: Vegetarian, Nonvegetarian, taking roughage diet, or type of diet taken.
(iii) Family History: Any such sort of compliant in the family members and history of TB.

(iv) Past History: Similar sort of illness in the past and history of previous operation, if done.

(v) Personal History: Enquiry was made into the personal habits of the patients regarding bowel habits, appetite, and quantity and quality of diet.

(vi) Social History: History regarding the social and economic status, about living conditions, occupation and income was elicited in order to find out the disease incidence in relation to the social status of the patient.

(vii) Complaints with duration: They were recorded in following manner:

(a) Pain:— Duration, Severity, nature, site, radiation, Character (mild, moderate, severe, burning, gripping, dull ache), Aggravating and relieving factors.

(b) Distention of abdomen:— Required
about if the distention was preceded by vomiting or vice versa.

(c) **Vomiting:** The patients were asked about the frequency, character of vomitus, colour of the vomitus, any foul odour, whether it was mixed with blood either.

(d) **Constipation:** The patients were asked about their bowel habits, whether the patient has only constipation or did not pass even flatus and for how long.

(e) **Fever:** Regular, irregular, high, low, and if associated with chills and rigors.

II - **Physical Examination**

(1). **General Examination:** General build, pulse temperature, blood pressure, anaemia, jaundice, respiration and lymphadenopathy.

(2). **Systemic Examination:** Examination of cardiovascular system, respiratory and nervous system.

(3). **Examination of Abdomen:** Examination of the abdomen was recorded in the following manner:
a) Inspection: Contour of the abdomen, position of the umbilicus, distention either central or peripheral, any venous prominences, any scar of previous operation, movement with respiration, visible peristalsis, visible lump, and hernial sites.

b) Palpation: Feel of the abdomen either soft, firm or tender, rigidity, rebound tenderness, liver dullness.

c) Percussion: Resonant or dull, shifting dullness.

d) Auscultation: Bowel sounds, or Borborygmi.

e) Rectal examination/Vaginal examination.

III - INVESTIGATION:

Following investigations were recorded in all the cases:

1. Blood: Total and differential leucocyte counts, Hb%, and erythrocyte sedimentation rate.

2. Blood Urea.

4. Urine-
Urinalysis.
Urinalysis.
Microscopic examination.

5. Plain X-ray abdomen:
   (1) AP view.
   (2) LV view in erect posture for gas under diaphragm.

Exploratory Laparotomy-
The findings of the exploratory laparotomy were recorded in the following lines:

1. Type of volvulus:
   This was either of the following types:
   a). Small Bowel Volvulus:
      In small bowel volvulus also it was noted that either the volvulus was of the upper small bowel or lower small bowel.
   b). Large Bowel Volvulus:
      They were either of the three types:
      i) Cecal (ileocecal) volvulus.
      ii) Transverse colon volvulus.
      iii) Sigmoid volvulus.

2. Predisposing factors:
   A. Small Bowel volvulus:
      a) Congenital bands:
         Specially looked for either they were single or multiple or if
they were present in any other part of
abdomen.

b) Adhesions:— Either multiple or at
different sites.

c) Tubercular lymph nodes:— Specially
searched for casingoing mesenteric lymph
nodes, if, enlarged, biopsy was taken.

d) Malrotation:— Either clock wise or
anticlock wise.

c. Cecal volvulus:—

1) Mobile cecum with mesentary:— The mesentary
of the cecum is measured by sterile threads and
extent of mesentary was noted.

2) Band and adhesions:— Similarly as for other
volvulus cases.

3) Malrotation:— Either clock wise or anticlock
wise.

c. Sigmoid volvulus:—

1) Narrow attachment of mesentary:— The
mesentary was measured by the similar method
applied for other volvulus cases.
11) **Long loop**— Length of the loop was measured.

111) **Locked colon**— The loop of sigmoid colon and pelvic colon was looked for either if it is loaded with fecal matter.

3. **Idiopathic**— These cases were labelled, where no predisposing factor was found in exploratory laparotomy.

4. **Associated Pathology**— The associated pathologies along with volvulus were recorded in master chart. They were as follows:

1. Oedema of the bowel.
2. Peritonitis.
3. Perforation.

In cases of mobile cecum the history was taken in detail as for cases of intestinal volvulus. After full clinical, radiological and histopathological examination a planned exploratory laparotomy was performed. The predisposing factors, other associated pathologies and complications were recorded in the master chart.

When full assessment was made a definite surgery was performed and recorded in master chart.