# OBSCURE, INCARCERATED, OR STRANGULATED HERNIA AS A CAUSE OF INTESTINAL OBSTRUCTION

## A Report of Four Cases

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The diagnosis of acute intestinal obstruction in most instances is readily established. Symptoms of pain, vomiting, and failure to pass gas or feces are usually the classical triad. In addition, systemic reaction and physical findings make the diagnosis conclusive.

The etiologic factor in such cases, however, often presents a difficult problem and one that must be decided as soon as possible. Unless surgical intervention is timely, the rapid sequence of incarceration, strangulation, mesenteric thrombosis, transudation of bacteria through the intestinal wall, peritonitis, and death will follow.

Causes of acute intestinal obstruction are innumerable. Infants are apt to have congenital anomalies, and intussusception occurs often in the first year of life. In children acute intestinal obstruction commonly results from intussesception, band adhesions, adherence of the intestine to infected retroperitoneal glands, undiagnosed appendicitis, and hernia. Common causes in adults are tumors; and in the aged, incarcerated hernia and malignant tumor. Many of the rare causes of intestinal obstruction must also be kept in mind.

Incarcerated hernia obstructs the fecal flow. Strangulated hernia impairs the blood supply as well and is usually present when the hernial tumor is painful and tender to touch. The type of acute intestinal obstruction with which this report is concerned is the obscure and frequently undiagnosed incarcerated or strangulated hernia.

**Incidence.** In the past six months 3 such cases have been successfully operated upon, and 1 patient died before surgical intervention. Although before operation hernia was suspected in each case except the second, in no case could incarcerated or strangulated hernia be determined as the direct cause of the obstruction.

### CASE REPORTS

**Case 1**—A man, aged 51, developed acute abdominal pain, followed by nausea and vomiting two days before admission to the hospital. He was unable to expel gas or stool.

Abdominal examination revealed typical layered appearance of small bowel distention with obstructive bowel tones on auscultation. The patient had no history of

#### **Obscure Hernia**

hernia, previous operation, or gastrointestinal bleeding. A small nodule, the size of a pecan in the left femoral region, was not tender, had consistency of a lymph node, and transmitted no tactile pulsation. The patient said that the nodule had been present ten years, never grew larger, or caused discomfort.

Study of gas shadow by x-ray did not localize the point of obstruction. A Miller-Abbott tube was passed through the nose, and patient was supported with parenteral fluids until well hydrated. Exploration through a rectus incision revealed a small knuckle of ileum incarcerated in the left femoral canal. It was mobilized with some difficulty and the hernia repaired. The patient recovered.

**Case 2**—A man, aged 84, was well until one week prior to admission. Following a hearty meal he had developed acute epigastric pain followed by nausea and vomiting, which continued intermittently for six days.

The patient was dehydrated, with stercornaceous breath and toxic facies. The abdomen was distended with only a few tinkling sounds on asucultation. Proctoscopy was negative for 25 cm. Retrograde x-ray studies were negative for colonic obstruction. The patient had a right inguinal hernia, easily reduced, which had been present "for years." There was no clinical evidence of incarceration or strangulation.

The patient became irrational so that a Miller-Abbott tube could not be used. Supportive measures were instituted, but the patient developed auricular fibrillation and expired before an operation could be performed. Autopsy revealed a small knuckle of ileum, twisted, strangulated and adherent at the internal ring, with associated mesenteric thrombosis.

**Case 3**—A man, aged 69, developed pneumonia six weeks prior to hospital admission. He convalesced uneventfully until the fifth week when he developed epigastric pain, nausea, and vomiting. Vomiting became fecal in nature and he was unable to retain food or liquids.

Patient was dehydrated with clinical evidence of intestinal obstruction. A small, soft lump palpable in the left femoral region, was not tender and showed no evidence of incarceration or strangulation. The patient did not know exactly how long the tumor had been present, but thought it was for some time. Exploration through a rectus incision **re**vealed that a small knuckle of ileum incarcerated in the left femoral canal was causing the obstruction. Convalescence was uneventful. It was believed that the coughing associated with pneumonia caused the incarceration.

**Case 4**—A woman, aged 77, developed acute epigastric pain followed by nausea and vomiting, three days before hospital admission. She had no history of hernia, but had a hysterectomy twenty-five years ago.

Patient was dehydrated with clinical evidence of intestinal obstruction. A soft, slightly tender mass in the right inguinal region suggested femoral hernia. There was no certainty, however, that it was not an intra-abdominal mass. Surgical exploration over the mass revealed a partially strangulated loop of ileum impacted in the femoral canal. Since the serosa still had luster and the bowel showed evidence of increased vascularity after reduction, the bowel was replaced in the abdomen and the hernia repaired. Convalescence was uneventful.

# SUMMARY

In the 4 cases of intestinal obstruction caused by obscure, incarcerated, or strangulated hernia diagnosis seemed simple after operation or autopsy revealed the true pathology.

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Actually each instance presented a difficult diagnostic problem. In not one case could an absolute diagnosis of hernia as the cause of the obstruction be made, although hernia was suspected in all but the second case.

In any occasion of acute, intestinal obstruction where there is a history of previous hernia or any masses in the inguinal or femoral region, the possibility of strangulation with incarceration of the hernia should be excluded.

The incision should be in a region where the suspected hernia is easily accessible. Decision as to where the incision should be made, however, is often difficult when the etiologic factor is not localized.

Clinical diagnosis of high or low obstruction may help since the jejunum and proximal portion of the ileum usually lay high in the abdomen and to the left, while the distal portion of the ileum is apt to be in the lower part of the abdomen or pelvis. In the first case there was some difficulty in freeing the incarcerated bowel because the incision was distant from the site of herniation.

A small incision is preferable. It may be enlarged if indicated. Through a small wound a collapsed loop of intestine can be picked up and traced back to the point of obstruction. A large incision presents the problem of coping with an open abdomen full of distended loops of bowel. With a small incision shock from exposure and handling is minimized, and closure of the wound is greatly facilitated.

# ABSENCE OF PITUITARY FAILURE IN FAT BOYS WITH TESTICULAR DEFICIENCY

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The term Fröhlich's syndrome is commonly used to designate obesity and retarded sexual maturation without regard for the fact that the original description of the condition by Babinski<sup>1</sup> and by Fröhlich<sup>2,3</sup> included also the presence of a suprasellar tumor. While obesity and retarded maturation are a combination frequently seen, suprasellar tumor is a rare concomitant. Adiposogenital dystrophy, a term proposed by Bartels,<sup>4</sup> might be used appropriately for these more common cases without tumor were it not that it, too, was originally designed to include the presence of a suprasellar tumor.

Opinions on the testicular biopsies are based on reports of Dr. Earl T. Engle, who studied the sections.