

## A CASE OF STRANGULATED EPIGASTRIC HERNIA

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Epigastric hernia, rarely large enough to admit more than a small amount of extraperitoneal fat, usually occurs in middle-aged male manual labourers. When large enough to admit omentum they are usually accompanied by severe epigastric pain disproportionate to the demonstrable pathology. It is most unusual for this type of hernia to admit bowel, and strangulation must be rare. The case presented exhibits interesting associated features, but also serves to demonstrate the remarkable way in which the Bantu are capable of enduring the effects of gross pathology with apparent indifference.

*History and Findings*

*M.F.*, age approximately 70. The patient was a tall, thin, vigorous, multiparous woman. She walked to a clinic situated 40 miles from the hospital, waited in a queue of out-patients, endured the journey over very indifferent roads in the back of a 3-ton lorry and slept overnight on the crowded floor in the hospital before being seen the next morning. She readily ate the food presented to her.

Her only complaint was of abdominal discomfort for 3 days, and she denied having had any vomiting or irregularity of bowel habit. On examination she appeared to be in moderate discomfort but her general condition was good (temperature 99.6F, pulse 100/minute, haemoglobin 11.5 G/100 ml., white cell count 10,000 cells/cu.mm.). In the right hypochondrium tangential to the midline was a round swelling 4 inches in diameter. There was central fluctuation surrounded by hot indurated subcutaneous tissues showing well marked *peau-d'orange*.

The umbilicus was normal and there was no sign of peritonitis or free fluid in the abdomen. From the pelvis a large tensely cystic mass arose to the size of a 20-week pregnancy. It was uniform and moderately tender and a vaginal examination presented the features of a cystic ovarian tumour. A diagnosis of a large abscess of the abdominal wall in association with a malignant ovarian tumour was made.

*Treatment*

It was decided to open the 'abscess' immediately, with a view to a more leisurely systematic investigation of the ovarian tumour. On incising the 'abscess' under general anaesthesia it immediately became apparent that the pathology was of a serious nature. Within a cavity of approximately 4 inches diameter a large piece of omentum, and what was presumed to be bowel within a sac, was found. The whole was gangrenous, infected and floating in black, oily, foul pus. It was decided to open the abdomen through a left paramedian incision in view of the gross sepsis, to resect the offending bowel, cure the hernia and investigate the pelvic tumour if possible. The terminal ileum 6 inches from the ileo-caecal junction was found embedded in a large mass of greater omentum which had effectively sealed off the abdomen. Nine inches of ileum was resected without displacing the incarcerated omentum, and an end-to-end anastomosis was performed.

Since there had been no observed contamination of the peritoneal cavity and her general condition was satisfactory, the ovarian tumour was inspected. This was found to be partly degenerated pseudomucinous cystadenoma, attached to the left pelvic abdominal wall by dense adhesions. The tumour was removed together with the left fallopian tube. The right ovary and uterus were atrophic and there was no free fluid in the abdomen.

Having removed the contents of the hernial sac through the first incision, it was unravelled and a perforated Richter type of hernia identified. The hernial orifice, large enough to admit a finger with ease, was to the right of the midline about  $3\frac{1}{2}$  inches above the umbilicus. It was closed with thick through-and-through silk sutures, and the abdomen closed in routine fashion. The hernial cavity was drained. The paramedian incision became infected but otherwise the patient made an uneventful recovery. Histological examination of the ovarian tumour excluded malignancy, and X-ray examination of the chest done after the operation was normal.

## DISCUSSION

The reason for the comparatively gross degree of strangulation in this case is difficult to ascertain. All African women in this area perform heavy manual labour. While working in the fields it is customary to use a short-handled hoe necessitating bending to work. The method of bending here is to keep the legs quite straight, all the flexion taking place at the hips, thereby throwing a constant increase of pressure on the abdominal contents. This pressure, further increased by the abdominal tumour would tend, over the years, to make even small deficiencies in susceptible positions give way. Her age and resultant general decrease in tissue tone would predispose to this happening.

A few months before this patient was seen, a young woman was admitted with an advanced strangulated umbilical hernia, also necessitating resection of part of the terminal ileum. In her case the tumour was a 5-month gravid uterus. Umbilical hernia is, however, a common finding in the Bantu. It is felt that the presence of abdominal tumours is a possible precipitating factor in the strangulation; in the enlargement of an existing small hernia in the upper abdomen; and a reason for the lifting up of the terminal ileum into this relatively high position in the abdomen.

## ADDENDUM

We have treated 2 further cases of epigastric hernia since the above patient was admitted. The first was a similar case in a middle-aged woman who had a large amount of omentum strangulated in the sac which was removed. She had no abdominal mass, but had been vigorously hoeing in the fields up to the day of admission. The second was also a middle-aged woman who had active pulmonary tuberculosis and resultant persistent cough. She complained of recurrent attacks of abdominal pain at the site of a palpable epigastric hernia. Both these cases were treated by repair, using the Mayo technique.

The fact that all these patients were females is probably significant, bearing in mind the great preponderance of females in the adult population, and the fact that the women perform the manual labour in these parts.

## SUMMARY

A case of strangulated terminal ileum through an epigastric hernia in an old South African Bantu woman is presented. The herniation was a Richter type and had perforated. There was an accompanying pseudomucinous cystadenoma of the ovary. A possible association between the strangulation and the pressure of an abdominal tumour is suggested.

I wish to thank Dr. A. H. Davies, the Medical Superintendent, for permission to publish.