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ILEOSIGMOID KNOT: A CASE REPORT

By

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A case of an ileo-sigmoid knot which presented with a sudden onset of colicky abdominal pains, is presented. Unlike a sigmoid volvulus, the abdomen was moderately distended and the pain became continuous and increased in intensity. This is a condition whereby the ileum is twisted along its own axis and encircled by the sigmoid colon. It occurs predominantly in male patients and predisposing factors could be due to nutritional conditions and tribal tendencies. It is difficult to recognise it clinically and at operation the surgeon may be able to identify it if the gut is not destroyed. The ileum is mostly gangrenous and demands resection and a continuous or an ileo-colic anastomosis.

Introduction

This condition involving the ileum and sigmoid colon results in rapid strangulation and gangrene of the gut due to formation of a loop. It is a rare condition of intestinal obstruction in our environment when compared to a high incidence of obstructed hernias¹. A high incidence of ileo-sigmoid knot was reported in East Africa² and was found to be common in young male patients, with nutrition as an aetiological factor. Easmon and Tahiru³ mentioned an ileosigmoid knot found in 3 patients, 2 males and 1 female, among 26 cases of volvulus recorded in 3 of the major hospitals in Ghana within the period of 6 years. In review of 53 cases of volvulus within 4 years, Ampomah⁴ reported 2 more cases of ileosigmoid knot and Archampong¹ made mention of 2 more cases.

In review of the literature a high incidence is found in East Africa particularly among the Baganda tribe of Uganda², in India, South Africa and in many north European countries. The aetiology is still undefined but considered to have a nutritional and an ethnic basis. The purpose of this paper is to re-emphasise that this condition which may be under-reported because

difficulties in recognition even at operation does occur in our environment and to elaborate its clinical manifestations.

Case:

A 31-year old policeman was admitted with severe abdominal pains of sudden onset 3 hours after supper with the pain increasing in intensity. Until he reported 1 hour later to the hospital, he had vomitted 3 times with the vomitus containing mucus and food eaten. He was in shock, ill-looking and in severe pain when brought to the hospital. The pulse rate was 116 per minute and blood pressure 90/70mmHg. The abdomen was distended mainly in the lower third and moved very little with respiration. There was tenderness and rebound tenderness in the lower abdomen and the bowel sounds were absent. A rectal examination revealed tenderness and boggi-ness anteriorly and contained normal faeces. Paracentesis yielded altered blood. Following resuscitation a laparotomy was done and an ileosigmoid knot exposed. A loop of ileum

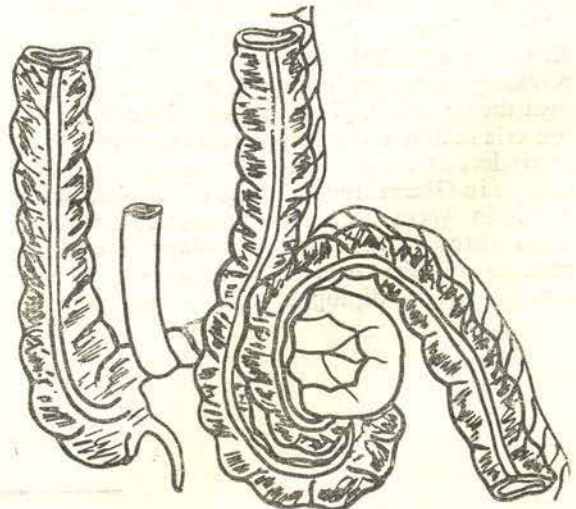


FIG. 1: *Ileosigmoid Knot: The ileum is seen twisted along its own axis and the sigmoid colon passing anteriorly in a clockwise manner round the ileum.*

was found twisted about 2cm proximal to the ileo-coecal junction. A loop of the sigmoid colon passed anteriorly in the anticlockwise direction thus encircling the ileum. (Fig 1) The knot was reduced and the gangrenous ileum resected. Postoperatively, the patient had diarrhoea with bowel movement ranging from 6 to 8 times daily for the first 10 days. This alternated with formed stool until the diarrhoea stopped spontaneously 3 months later.

Discussion

An ileosigmoid knot is normally described as a loop of ileum encircling the sigmoid colon in a clockwise or an anticlockwise direction when the former descends into the left paracolic gutter. This patient shows many features associated with this lesion except that the sigmoid colon was rather found to encircle the ileum in an anticlockwise direction. As the knot tightened, the bowel became more obstructed forming a double closed loop and the involvement of the mesentery resulted in an early strangulation. It could also be referred to as a double volvulus although the term is rarely used but clinically the ileum was twisted along its own axis and secondarily encircled by the colon. Reports have been given where patients were admitted with 7 or 8 day history of subacute intestinal obstruction but were found to be ileo-sigmoid lesions at surgery⁵. The severity of the lesion, therefore, depends mainly on the impairment of the blood vessels hence this condition could occur in its severe or mild form.

Male patients between the ages of 35 to 39 are predominantly affected and the pain which is sudden in the onset and colicky in nature occurs in the early hours of the day². A heavy evening meal composing of "Akple" mainly carbohydrate and "okro" soup is the underlying factor of this lesion in this patient whose symptoms occurred only 3 hours after the meal. It is not possible to associate this condition with the lesion since carbohydrates form the major portion of our food in which case volvulus should be very common. Bulky evening meals², and lots of vegetables³, are supposed to be predisposing factors for volvulus. Among the Bangada tribe of Uganda where ileo-sigmoid knot is found to be common, a high percentage of 5 hydroxy-tryptamine is supposed to form a high component of their meals. This

induces marked activity in human small bowel. Some other aetiological factors such as weakness of the abdominal wall have been mentioned in the past but may not be accepted due to the low incidence. Elongated mesentery, however, could be a supporting factor to this condition.

It is clinically difficult to recognise an ileo-sigmoid knot and even at surgery an excessive gangrene adds to this difficulty. A plain X-ray of the abdomen confirms an intestinal obstruction whereas the aspiration of sanguinous fluid only confirms a condition of the gut. In some cases the X-ray shows air/fluid levels with loops of both large and small bowels while in other cases the X-rays may be normal or show dilated small bowel. Hence in the absence of an obstructed hernia (which is the cause of majority of intestinal obstructions in our environment and in the absence of a previous survey) it will be of interest to the surgeon to have volvulus in mind. In this way a typical X-ray picture of a volvulus and a clinical sign of peritonitis with maximum tenderness in the lower abdomen is more likely to involve an ileo-sigmoid lesion. The initial central colicky pain which gives way quite early to a constant generalised abdominal pain is the condition which induces about 75% of the patients to report earlier to the hospital as compared to those having sigmoid volvulus. There is usually gross distension of the abdomen in sigmoid volvulus and recurrent abdominal pains in about 30% of cases. This differentiates itself from an ileo-sigmoid knot where abdominal distention is moderate and the abdominal pain is continuous.

At surgery, the ileum is mostly damaged as a result of the double twisting and needed resection. Where the ileum alone is affected a primary anastomosis with or without a Paul Mikulicz double bared colostomy could be made. The colostomy which is made in the left iliac fossa is then closed about 3 months later. In other cases an ileocolic or ileo-coecal anastomosis is the surgery of choice. This is necessary when the rest of viable ileum is less than 2cm from the ileo-coecal junction. A terminal left iliac colostomy is prepared with a closure of the rectal stump in cases where the sigmoid colon is gangrenous, and the colorectal anastomosis made about 3 to 4 months later.

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3. ASCARIASIS: CASE REPORT OF THE RESULT OF A SINGLE ORAL DOSE TREATMENT

By

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Summary

A case of ascariasis which was treated with a single dose of Bephenium hydroxynaphthoate (Alcopar) resulted in the expulsion of 54 adult worms, within 48 hours after treatment.

The effect of the treatment strengthened the confidence in Western Medicine of the local population.

Introduction

Ascariasis is a common helminthic infection in many parts of the world. It is considered the most prevalent agent of mankind¹. It is particularly common in tropical and sub-tropical regions. In some African villages, for example, as many as 40-70% of the population may be infested^{2, 3}.

The condition is caused by *Ascaris Lumbricoides*, one of the largest intestinal parasites (in average measuring 15-30cm by 2-5 mm). It was known to the ancient Egyptians and was first described in Ebers' papyrus, dated about 1550 B.C.

In the vast majority of individuals *ascaris lumbricoides* lives in the intestine and asymptomatic passage of ova and adult worms occurs. Ill effects without detection are related to the general condition of the patient and the severity of the infestation. Only very heavy infection will interfere with the nutritional status in growing children.

Adult worms usually spread through the length of the small intestine, i.e. medial third of the jejunum. They show, however, a

great ability to reach unexpected places throughout the body, causing ectopic forms of ascariasis. Complications of intestinal infestations are not uncommon and depend to a large extent, on the total number of worms. Intestinal complications are the most prevalent, usually obstruction, but also volvulus or perforations are encountered⁴. Ascariasis may migrate to the bile ducts of the liver and to the pancreatic duct, causing extra intestinal complications. They may be vomited, obstruct the naso gastric feeding tube, emerge from a nostril or from a perforated eardrum through the Eustachian tube. Migration to the larynx causes difficulty in breathing and death from suffocation could occur.

Current clinical research into the treatment of ascariasis advocates highly effective oral preparations administered in a single dose⁵. Used in mass campaigns and assisted by improved sanitation, it could dramatically reduce the incidence of ascariasis in endemic areas. In many parts of Africa the treatment of illnesses starts with the consultation of the herbalist or fetish priest. If the treatment fails, Western medicine may be tried. The acceptance of Western medicine is related to the results of the treatment.

The following case report gives an example which might help strengthen confidence in Western medicine.

Case Report

A five-year old Ghanaian boy was brought to the Holy Family Hospital, Techiman B/A,