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BENIGN STRICTURE OF THE INTESTINE*

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BENIGN FIBROUS STRICTURE of the bowel following an episode of strangulation first appeared in the literature in 1784. In 1892, Garré of Germany reviewed previous literature and coined the term "intestinal stenosis." This condition has therefore been referred to subsequently as the "benign stenosis of Garré."

The first cases reported were observed to follow reduction of strangulated hernias by taxis, but today, with operative reduction, this complication still occurs. Intussusception has been reported as a cause by Tanner and Bratton.[2] The precipitating cause appears to be strangulation of the bowel. The condition is probably due either to vasospasm or to vaso-insufficiency within the strangulated loop, with resulting ischæmia. Although not sufficient to devitalize the bowel completely and permit perforation, this ischæmia is sufficient to cause marked fibrosis and later stricture, a process not unlike Volkmann's contracture in a limb.

When seen in the late stage, there is a small segment of bowel which is contracted but possesses a very thick wall. The lumen of the bowel is greatly narrowed or even occluded. The pathological picture is one of fibrosis of all the layers of the bowel wall.

Many previous articles have drawn attention to the occurrence of diarrhœa, or the passage of blood in the early postoperative period. Neither of these observations were made in the two cases reported herein.

CASE 1

Mrs. A.E., age 62, was first seen at the Toronto East General Hospital on July 14, 1950, at which time she was suffering from strangulation of a right femoral hernia of 12 hours' duration. At operation the sac was found to contain blood-tinged fluid; the bowel was black but the serosa glistened. Thirty-five minutes were spent in applying hot packs, and during this time a slow but steady return of colour was noticed. The bowel was thought to be viable, and was returned to the abdomen. Wangensteen suction was maintained for three days after operation, being discontinued on passage of flatus. The postoperative course subsequently was slow because of considerable gas collection and intermittent distension in the presence of active peristalsis and the passage of flatus. The patient was discharged on the 19th postoperative day.

Mrs. A.E. was readmitted on October 1, 1950, because of intermittent bouts of pain and constipation. The picture at this time was one of subacute obstruction. Treatment was expectant: the patient promptly improved and was discharged on October 9, free of discomfort.

She was again admitted on December 13, 1950, showing signs of intestinal obstruction, the interval having been marked by many attacks of pain and constipation. At operation on December 14, a dense scarred area was noted in the terminal ileum. This portion of bowel had the consistency of cartilage. The proximal bowel was dilated; that below the lesion was collapsed. A side-to-side ileo-ileostomy was performed. The postoperative period was marred by pulmonary embolism, treated with heparin. The patient survived and has not had further trouble.

CASE 2

Mrs. L.H., aged 53, was first seen at the Toronto East General Hospital on January 10, 1954, because of a strangulated hernia of 13 hours' duration. At operation, the sac was noted to contain blood-tinged fluid. The bowel surface was shiny, and dark red to black in colour. After 15 minutes, peristalsis crossed the loop, and the colour was again normal. The bowel was returned to the abdomen. The postoperative course was uneventful and the patient was discharged on January 17.

She was readmitted on April 10, because of recurrent vomiting and abdominal pains. These symptoms started two weeks after discharge, and slowly increased in frequency and intensity. At laparotomy, on April 11, a narrowed fibrous ring 4 cm. in width was found, 2½ ft. (75 cm.) from the ileocæcal valve. This ring was very hard, and on palpation there did not appear to be any lumen present. The proximal bowel was distended and the distal bowel was collapsed. A side-to-side ileo-ileostomy was performed. The postoperative course was uneventful and the patient was discharged on April 22. Follow-up as an out-patient revealed no further complaints.

COMMENT

These patients present the same basic pathology, strangulated femoral hernia of approximately 12 hours' duration. In the first case, the colour was slow to return; in the second, it was prompt and peristalsis crossed the involved segment. Both patients presented symptoms of stenosis early after operation and both required hospitalization approximately three months after reduction of strangulation. Both cases were treated by side-to-side ileo-ileostomy. The possibility that adhesions may cause the same picture must not be overlooked. However, in neither case were any adhesions of significance found at operation.

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It is doubtful whether the occurrence of this stenosis can be foretold at the time of the original strangulation. Thus prophylactic resection at this stage is not advocated.

SUMMARY

1. Benign stricture of the intestine, an uncommon but always possible complication of intestinal strangulation, is discussed.

2. The pathology is likened to that of Volkmann's contracture; the condition appears to be due to ischæmia and subsequent fibrosis.

3. It is recognized by the signs of subacute or acute small bowel obstruction.

4. When symptoms of acute obstruction arise, the treatment advised is side-to-side ileo-ileostomy without resection.

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ADENOCARCINOMA OF THE SMALL BOWEL

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IN NOVEMBER 1954, I was called in consultation to see Mr. S.J., aged 65, who had a history of epigastric distress dating back some 25 years. His presenting complaint was inability to eat because of resulting crampy abdominal pain. He was nauseated some of the time and vomited occasionally. He also complained of general weakness and shortness of breath, which had been increasing rather rapidly over the past few months. At one time he had a gastrointestinal series and an acid test meal done at a Toronto hospital, and apparently nothing was found at that time.

About two years previously, his appetite began to fail somewhat and he had burning in the epigastrium which was aggravated by food but relieved by milk. Also two years ago, his constant constipation appeared to become worse and he had difficulty moving his bowels. Apparently, he had been in this hospital from March 6 to 9, 1954, with a diagnosis of unexplained anæmia and had received blood transfusions which gave him a temporary elevation of hæmoglobin value. However, after discharge his blood hæmoglobin rapidly returned to a low level and he was readmitted from April 12 to 15. A search was again made for blood loss and apparently none found. At that time his hæmoglobin value was in the neighbourhood of 50%. At the time of admission it was suspected that this man had some hidden bleeding or some blood dyscrasia, although no evidence was found to support this. The patient had noticed a movable lump in his left lower abdomen for several months, and he thought that it had increased in size in the past few months.

He was a rather sallow, elderly man in poor nutrition. He had some increased pigmentation of his elbows and other areas, but it did not appear to be any more than his normally rather dark and somewhat sallow colour. His head, neck and chest were normal; there was no evidence of glandular enlargement in the supraclavicular triangle or elsewhere. The heart and lungs appeared to be normal. The abdomen was flat and soft; the wall appeared to be, like other tissue, under a general degradation process, probably malnutrition. There was a hard, smooth, crescentic mass about two inches (5 cm.) long in his left lower quadrant, which could be moved across to the right side or back into the left paracolic gutter. This mass had great mobility. On heavy pressure against the bones, it did not pit or indent, and was tender only under heavy pressure. Rectal examination revealed a prostate somewhat enlarged, more particularly in the left lobe, but spongy and not suggestive of malignancy.

Laboratory investigation including radiography showed nothing striking other than the marked hypochromic microcytic anæmia. Gastrointestinal series and acid test meal results were within normal limits. The differential count was also normal. The blood smear revealed a rather characteristic picture of a hypochromic microcytic anæmia. The hæmoglobin value on November 16 was 44%; the sedimentation rate was normal and the urine normal. Repeated tests for occult blood in the stool were negative.

My impression of this man was that his anæmia was more likely to be due to nutritional difficulties, as he had lived on milk alone for the past few years because everything else appeared to bother him. It was also my opinion that the smooth, non-tender, very mobile mass in his abdomen had something to do with his inability to eat and digest food. A bone marrow examination was considered but not done.

The patient was prepared for operation by the infusion of 3,000 c.c. of blood and when his condition was considered reasonably satisfactory he was operated upon on November 23, 1954,

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