Tuberculosis presenting as an Acute Surgical Emergency

BY

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Some time ago I reported two unusual cases of acute non-tuberculous surgical emergencies which occurred in a tuberculosis hospital. It would appear approriate, therefore, to present the other side of the coin and report some cases of tuberculosis which presented as acute emergencies and were subjected to operation.

Case 1

M.N., an adult male African, aged about 40 years. He was admitted to Mpilo Central Hospital on 2nd August, 1967, with elephantiasis of the pubic area, penis, right thigh and right leg. An above-knee amputation was performed on 14th August. On 8th September, while still in the surgical ward, it was noted that the patient had been complaining of epigastric pain for the past week. This was intermittent in character, worse shortly after eating and was associated with vomiting about once a day, which relieved the pain. Treatment with magnesium trisilicate and phenobarbitone resulted in rapid improvement and the patient remained free of pain until 17th September.

On this date the patient vomited at 2 p.m., and this was followed by the sudden onset of severe pain in the left upper quadrant of the abdomen, which rapidly spread across the entire upper abdomen. On examination, the patient was distressed and slightly dyspnoeic, with a pulse rate of 130 per minute. The abdomen was markedly distended with the presence of free fluid doubtful. The abdominal wall was tense, but not rigid. The upper abdomen and the right inguinal fossa were tender and there was rebound tenderness in the epigastrium. The liver dullness was diminished, but no masses could be detected.

A diagnosis of perforated peptic ulcer was made and laparotomy was performed. The operative findings were as follows:

"No free gas or free fluid. A nodular mass 3½ inches in diameter in region of head of pancreas with soft enlarged lymph glands around pylorus. Firm white nodules ¼-½ inch in diameter over anterior wall of duodenum. Liver soft and normal."

There were no other findings and the wound was closed. Histology of a portion of the mass removed at operation showed tuberculous peritonitis.

Case 2

N.H., an adult male African, aged about 32 years, was admitted to Mpilo Central Hospital on 27th January, 1968, complaining of epigastric pain which had started the previous afternoon and had become progressively worse. The pain was continuous and did not radiate, but was improved by vomiting. He gave a previous history of frequent bouts of abdominal pain and heartburn since 1963 and stated that he had had a haematemesis in 1967, his bowels had not been opened since the previous morning and he had felt distended since the pain started.

On examination, his general condition was fair, but he was slightly dehydrated and his temperature was 101.4° F. His pulse was 112 per minute. His abdomen was somewhat distended; there was no visible peristalsis; there was generalised guarding and tenderness, most marked in the epigastrium, where rebound tenderness was also present. No bowel sounds could be heard and it was thought that a small amount of free fluid might be present.

A radiograph of the abdomen was reported as follows:

"There is free gas under the diaphragm. There is free fluid in the abdominal cavity with gas and fluid levels in small bowel and gas in large bowel. The changes are highly suggestive of a perforated peptic ulcer with an associated peritonitis and ileus."

A diagnosis of perforated duodenal ulcer was made and laparotomy was performed. The operative findings were as follows:

"Pus found under hemi-diaphragm. Swab taken. Stomach greater and lesser curves inspected. Duodenum inspected, lesser sac opened, posterior surface inspected. Nil found. Distended loops of jejunum were then delivered until in the mid-jejunum region the distended loops ended in an extensive granulomatous area with large mesenteric glands. Pus ++ was present over this area. The granuloma was circumferential, forming an almost completely stenotic ring. A bypass was made between two loops of jejunum immediately above and below this lesion and the abdomen was closed. Histology of a portion of the granulomatous area removed at operation showed tuberculous granulation tissue."

Case 3

E.M., an adult African female, aged about 35 years, was admitted to Mpilo Central Hospital on 16th November, 1968. She was a para 3, the youngest child being 22 months of age. Her periods had been regular and normal, the last one having terminated 10 days previously. She was complaining of severe abdominal pain which

had started about 24 hours previously. It had started above the umbilicus, passed into the back, and then become generalised and accompanied by several bouts of vomiting. The vomitus was a light brown fluid. She had passed a constipated stool the previous morning.

On examination, she was in a condition of shock and clearly in pain. Her pulse rate was recorded between 104 and 120 per minute and her blood pressure as 90/30 and later as 80/0. She was apyrexial. There was generalised rigidity of the abdomen and shifting dullness in both flanks. The cervix was firm and there was no particular excitation tenderness, although some pain was elicited on movement to the right. The Pouch of Douglas was tender and felt somewhat full. Paracentesis of the pouch revealed a yellow opaque fluid. Having been admitted as a probable case of ruptured ectopic pregnancy, she was at this point transferred to the care of the general surgeon. It was not possible to obtain a straight X-ray of her abdomen as the patient collapsed in the X-ray department before a film could be taken. Laparotomy was performed. The operative findings are summarised below:

"Turbid yellowish fluid and free gas (not offensive) escaped when the abdomen was opened. A perforation $\frac{1}{4}$ in. x $\frac{1}{4}$ in. was found on the anti-mesenteric border of the small bowel. All the small bowel and the large bowel with the exception of the transverse colon (which was covered by thickened omentum) was grossly inflamed and partly covered by fibrinous exudate. The appendix was bound down by vascular fresh adhesions between the caecum and the sigmoid colon. Appendicectomy was performed leaving the tip adherent to the wall of the inflamed sigmoid colon to prevent possible injury to the latter organ. Other organs were normal."

The perforation of the small bowel was treated by oversewing and not by resection and anastamosis. No biopsy specimen of the site of the perforation was therefore obtained, but the appendix contained caseating tuberculous granulomata and it seems reasonable to suppose that the small bowel perforation was the result of similar pathology.

Case 4

J.N., an adult male African, aged about 48 years, was admitted to Mpilo Central Hospital on 12th May, 1969, with a right inguinal hernia which had been present for two months and which had suddenly become irreducible the previous day. There had been no constipation and the last bowel action had been 16 hours prior to admission. A straight X-ray of the abdomen was reported as follows:

"There is gas-distended coil of small bowel centrally placed in the lower abdomen. No fluid levels are seen in the erect position and the presence of gas and faeces in the rectum tends to exclude an obstructive lesion."

Apart from the hernia, there were no other abnormal clinical findings. Herniorrhaphy was performed. At operation it was noted that the small intestine and the hernial sac were covered with "strawberry-like papules," probably tuberculous peritonitis. This diagnosis was confirmed histologically.

Discussion

Cases 1, 2 and 3 were very similar in presentation. Had not Case 3 been a female, and had she not, when first seen, given a menstrual history at variance with the one subsequently obtained and recorded above, it is likely that a diagnosis of perforated peptic ulcer might have been selected initially instead of an ectopic red herring.

An attempt to grow acid-fast bacilli from the pus swab taken from Case 2 failed, and this fact, together with the acute onset and the appearance of the pus, suggests that the peritonitis resulted from a leak through the granuloma from the jujunum to the peritoneal cavity, though no such leak was readily visible at operation. The perforation of the ileum discovered in Case 3 had the appearance of a spontaneous perforation with no obvious gross pathology surrounding it. However, the presence of a tuberculous appendicitis makes it tempting to postulate that a similar process in the ileum may have been the determining factor. It is unfortunate that no biopsy of the perforation site was taken as, despite the presence of tuberculosis, its responsibility for the presenting picture must remain speculative.

Case 1 is of particular interest since it is difficult to explain the history and the symptoms and signs on the basis of an uncomplicated tuberculous peritonitis; yet the subsequent course of the case shows that no more sinister pathology was overlooked at operation.

Case 4 is of a somewhat different category inasmuch as there was a pre-existing non-tuberculous condition present. However, it is at least possible that the occurrence of the tuberculous peritonitis was the decisive factor in causing the hernia to become irreducible, and if so, it qualifies for inclusion in this report.

My purpose in presenting this report has not been to infer that the correct diagnosis should have been made pre-operatively, or to suggest that tuberculosis should have been suspected as the aetiological agent in these particular cases. They do illustrate, however, the fact that tuberculosis can present in the most unexpected manner

and my purpose has been to remind us once more of the need to consider this disease in every case in which there is any doubt as to diagnosis or anomalies in symptoms or signs. It has rightly been said that common diseases more often occur in uncommon ways than that rare diseases occur. In no disease is this more true than tuberculosis, which is, in this country at any rate, probably medicine's greatest mimic.

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