SPONTANEOUS RUPTURE OF THE RECTUS MUSCLE WITH HAEMATOMA OF ABDOMINAL WALL

by

K. M. MASANI*, M.D. (Lond.), F.R.C.S. (Eng.), F.I.C.S.

Spontaneous haematoma of the abdominal wall is a rare accident in adults. When this case was presented at a Staff Meeting of the B.D. Petit Parsee General Hospital, Bombay, surgeons of many years' standing stated that they had not come across a case of this nature. Even books on surgery either have completely omitted mention of it or have commented very briefly except in "Companion In Surgical Studies" by Aird.

Case Report

An elderly unmarried female, age 68, was suffering from severe cold and bronchitis from 16-1-65 and was treated for it by her family physician. On 24-1-'65 the patient had sudden severe abdominal pain during straining for evacuation of her bowels. She mentioned that she had been constipated since a week probably as a result of Linctus Codeine given for her cough. The pain increased in intensity and she vomited twice. The family physician examined her soon after the seizure of pain and found tenderness in the left lower abdomen. The severe pain continued for about 12 hours and was relieved after a simple enema. The following day 25-1-65, the physician found a tender, soft swelling in the lower abdomen on the left side.

When I examined her on 26-1-65 a tender, ill-defined mass of elastic consistency was felt extending from the symphysis pubis to a little below the umbilicus and extending from the midline towards the left iliac fossa. It was slightly tender on palpation but otherwise there was no abdominal pain and she had no further nausea or vomits. Being unmarried, a rectal examination was done. An elastic mass having fairly well defined margins and extending from the left iliac fossa to the brim of the pelvis was palpated. It was fairly mobile and not tender.

The patient was admitted to the B. D. Petit Parsee General Hospital on 26-1-65 with provisional diagnosis of: (1) torsion of an ovarian cyst, or (2) haemorrhage into a malignant ovarian cyst.

Investigations

The throat was congested but the lungs were clear. Cardio-vascular system was normal, including an electrocardiogram.

Blood count: RBC, 3.8 millions per c.mm.; haemoglobin 12 gm. per cent; WBC 10,000 per c.mm. Urine: nothing abnormal; blood urea 28 mg. per 100 c.c.; blood sugar 85 mg. per 100 c.c.

Operation on 28-1-65 was performed under general anaesthesia. A left paramedian incision was made extending from the symphysis pubis to below the umbilicus and was deepened upto the rectus sheath. The rectus sheath was normal in appearance and was not bulging. On opening the rectus sheath, dark blood and blood clots were seen. The blood and blood clots were scooped out and it was observed that the left rectus muscle was lacerated at several places and was generally friable. More blood clots were found under the rectus muscle, between it and the parietal peritoneum. The left deep epigastric artery

Hon. Obstetrician & Gynaecologist, The B. D. Petit Parsee General Hospital; Honorary Visiting Obstetrician & Honorary Principal Medical Officer, The Novrosjee Wadia Maternity Hospital, Bombay.

Received for publication on 17-5-65.

was intact and no bleeding points could be found on careful search. The parietal peritoneum was opened. No blood was found in the peritoneal cavity. The uterus was small and atrophic. Both the ovaries were small and senile.

The parietal peritoneum was closed by a No. 0 chromic catgut suture. The lacerated margins of the left rectus muscle were gently approximated also by No. 0 chromic catgut, but more than once the stitch cut through because of friability of the muscle. The rectus sheath was closed by interrupted mattress sutures of No. 1 chromic catgut. The subcutaneous fat was approximated by a few interrupted sutures of No. 0 plain catgut and the skin margins were approximated by Mitchel's clips. Convalescence was uneventful.

Comments on the Case

First of all a pre-operative diagnosis of haematoma of the abdominal wall was not considered at all because spontaneous haematoma of the abdominal wall is a rare complication. Besides, the symptoms and physical signs were in favour of torsion of an ovarian cyst or haemorrhage into a malignant ovarian cyst. The sudden lower abdominal pain following straining at stool, vomiting, aggravation of pain for 12 hours all fitted in well with torsion or haemorrhage into an ovarian cyst. The relief of pain after 12 hours indicated partial torsion for a few hours.

The physical signs were misleading in several ways. Had the haematoma been beneath the rectus sheath and anterior to the rectus muscle, there would have been an ill-defined, tender mass suspicious of being in the abdominal wall. In this case, however, the major portion of the collected blood was between the posterior surface of the rectus muscle and the parietal peritoneum and the deep situation did not arouse suspicion of an abdominal wall mass. Pain would have persisted and tenderness would have been marked had the collection of blood been anterior to the rectus muscle because the haematoma would have been under tension. In this case, there was no resistance by the parietal peritoneum which bulged towards the abdominal cavity. It is this bulging towards the abdominal cavity which gave the impression of a cystic tumour in the abdominal cavity and as it was extending towards the pelvis the diagnosis of an ovarian cyst was logical.

The etiology of haematoma beneath the rectus sheath is summarised:

(1) Spontaneous haematoma of the rectus sheath has often been described in pregnancy and puerperium. It may occur within half an hour after delivery and expulsion of the placenta.

(2) Spontaneous haematoma may develop in the rectus sheath in such *blood dyscrasias* as haemophilia, scurvy and leukemia, and in patients on heparin.

(3) Bleeding may occur within the rectus sheath, not only in typhoid fever but also in other infectious fevers and debilitating states, typhus, tuberculosis, influenza and ulcerative colitis.

(4) Deep epigastric vessel may be injured by direct violence of a blow and with or without demonstrable damage to the rectus muscle.

(5) Deep epigastric vessel may be torn, perhaps with a few fibres of the rectus muscle, in young sportsmen. A similar episode may occur in the course of tetanus.

Summary

A case of spontaneous haematoma of the abdominal wall in an unmarried elderly female is described. It was diagnosed pre-operatively as torsion of an ovarian cyst or haemorrhage into a malignant ovarian cyst.

Relevant comments on the case have been given.

A brief review of etiology of haematoma of the abdominal wall is given.

References

1. Aird, Ian: Companion in Surgical Studies ed. 2, reprint, Edinburgh and London, 1958, E. & S. Livingstone Ltd. p. 639.