CASE REPORT OF A WANDERING SPLEEN WITH TORSION

by

N. D. Motashaw, M.D., F.R.C.S.,

and

Ajit Mehta, M.D.,

N. W. Maternity Hospital, Bombay.

Abdominal cavity, in spite of advances in diagnostic skill, continues to present baffling, strange and fascinating problems. Every organ contained within the abdomen can simulate the other organ under changed or diseased condition. Hence, the thrill of opening the abdomen persists with every operating surgeon.

A wandering spleen which had undergone torsion was, recently, mistakenly diagnosed as a case of twisted ovarian at N. W. Maternity Hospital, Bombay. Such cases are few and far apart in medical literature and need to be reported.

Scanning of past literature becomes an inevitable prerequisite. Earliest report dates back to 1908 when Johnstone reported 39 cases of ectopic spleen with torsion. Many other authors have subsequently contributed to swell up the list of cases of wandering spleen with torsion, and, to-date approximately 200 cases are found in the literature. Prominent contributors were Sen, Abel, Bohrer, Romiti, Anton and Levison. Abel's analysis, in 1933, of 93 cases stands still as the most masterful work. All of them have been impressed with the rarity of the condition, and believe that, for the torsion to occur, the pedicle of the spleen must be elongated. The elongation may be congenital or acquired. Among the acquired causes tearing or stretching of splenic ligaments or peritoneal folds is commonest; and this may occur either because of repeated pregnancies, general visceroptosis, trauma, or from enlargement of the spleen due to some reason or other. Various theories are propounded to explain the torsion which may take place in a spleen made thus vulnerable. They may be mentioned as: (i) traumatic, (ii) of muscular exertion, (iii) due to imbalance of normal organ caused by enlarged spleen, (iv) due to peristaltic action of the intestines, and (v) the haemodynamic theory of Payr in which the veins are said to wind around the artery followed by the whole organ. The rotation may be acute or chronic and gives rise to corresponding symptomatology. Splenomegaly is not considered as an etiological factor but rather the end result of partial obstruction of local blood supply producing engorgement and hypertrophy.

The condition is common in the middle aged and the multiparous.

Women are undoubtedly more susceptible than men for, in it, they pay the price of pregnancy and labour. Abel's ratio of women to men is 16 : 1. The constitutional make-up of the sufferer is usually frail and asthenic.

The clinical picture is varied. Acute abdominal catastrophe like peritonitis, appendicitis, intestinal obstruction, torsion of mesenteric cyst, or torsion of ovarian tumour are considered in the differential diagnosis. Chronic conditions like fibroids or ovarian tumour, kidney tumour, omental mass and intestinal growth are others which are also taken into consideration. Hence, the symptoms may be acute, subacute or chronic varying from collapse, severe pain, distension of abdomen, vomiting, fever, constipation, dull pain, flatulence and dragging sensation in the abdomen. The twist of the wandering spleen is almost an impossible diagnosis preoperatively, and only one case has been reported in the literature. The opinion is shared by all that a twisted ovarian cyst is mistakenly diagnosed in a large percentage of cases.

The treatment is simple and consists in splenectomy. The technical difficulties at operation are few because of the immense mobility. The after-effects are practically nil and only the fear of pancreatic fistula must be guarded against. Prognosis is comparatively grave when the condition is associated with pregnancy.

Case Report

On 26th of May, 1958, a thin woman aged about 30 years was admitted in N. W. Maternity Hospital with the complaint of pain and tenderness in the abdomen for few days. She had borne an infant 20 days previously without any trouble. Her period of pregnancy was smooth and labour was normal. In the immediate puerperium, there was pain in the abdomen and fever which had subsided on the 7th day. Pain recurred with tenderness and tenseness in lower abdomen; fever was occasional and slight. The severity of pain gradually increased and a mass was felt by the patient in the lower abdomen. Fomentation, application of oils and vigorous massage to the abdomen were tried at home with no relief.

There was no history of similar pain or fever in the past. There was no history of malaria, Kala-azar, typhoid, amoebaesis, etc. Menstrual cycles were normal, bowel movements and micturition were regular.

The patient was pale and anxious on examination. Her general condition was fair. T.P.R. and B.P. readings were normal. Of significance was a tense tender firm mass in lower abdomen, more to the right, which allowed little side to side movement. The size was of a cricket ball; its upper limit reached the umbilicus and its lower edge was just dipping inside the pelvic cavity. Percussion was dull and no peristalsis was heard. The abdominal muscles were kept slightly guarded. An internal examination revealed a cervix pointing downwards and forwards with a closed external os. The uterus was retroverted and retroflexed, firm to feel; its fundus could not be reached. The left and posterior fornices were clear while in the right fornix, high up, the lower limit of the abdominal mass was felt.

Twisted ovarian tumour or tuberculous omental and intestinal mass were the differential diagnosis.

Blood investigations carried out were: R.B.C. 3.08 mill./c.mm., Hb % 52, W.B.C. total 20,000 with polymorphs 78%, eosinophils 6%, and lymphocytes 16%. The urine was clear. The x-ray of the abdomen was normal except for a soft tissue shadow in lower abdomen.

On 28th May, an exploration was done

under spinal anaesthesia. The parietal peritoneum was oedematous and lightly adherent to the structures underneath. No ovarian tumour was noted. Instead, a large red spleen was seen filling up the lower abdomen. The spleen had undergone torsion in the anti-clockwise fashion. It was untwisted three turns and separated from the flimsy adhesions it had gathered on the surrounding organs. The long and thickened pedicle was clamped and cut with care to avoid injury to the pancreas and the spleen was excised. The stumps of the pedicle were ligated. The rest of abdominal cavity was explored to confirm its normality.

Blood transfusion, antibiotics and haematinics were given post-operatively. The recovery was uneventful and the patient was discharged on 9th of June, 1958.

On 16th June, patient was readmitted for swelling on the left leg which was due to thrombophlebitis. She was discharged on 24th of June as cured.

Blood investigations conducted during the second stage were as follows:

R.B.C. 3.43 mill./c.mm., Hb. % 70, C.I., 1.02, M.C.V. 86 U, M.C.H.C. 31%, W.B.C. total 4,250/c.mm., neutrophils 54%, eosinophils 22% and lymphocytes 24%, icterus index 2 units, Van den Berg's test was negative, blood proteins 8.4 gms. %, platelets 270,000/c.mm. The urine examination was normal.

Specimen Report

Microscopic:

A markedly enlarged spleen (wt. 1133 gms.) of normal shape. The external surface was red and haemorrhagic in fresh state, and bluish brown in the preserved state. At places it was white due to superficial adhesions. The consistency was soft and cystic at places, while it was relatively firmer at the lower end. The perispleenic capsule was thickened. The pedicle was thick and the splenic vessels showed clotted blood within them. Cut surface showed deep red pulp, soft to the feel.

Microscopically:

There were prominent trabeculae and dilated sinusoids. The pulp showed fibrosis. Malphigian bodies were atrophic. At one part there was an infarct. There was no evidence of pancreatic tissue around the pedicle.

This spleen confirmed to the usual pathology of a wandering spleen which undergoes torsion. Evidence of disease in it was absent.

Summary and Conclusion

1. A case of wandering spleen with torsion is presented.

2. The diagnosis was mistaken for twisted ovarian cyst in the puerperium.

3. A short resume of the condition, in general, is made.

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Fig. 1
Photograph of the twisted spleen in situ.