
CASE REPORT

Wandering Splenomegaly, the Cause of Pelvic Mass : A Case Report

Prateep Leelamunkong MD,*

Pannee Sirivatanapa MD.**

* Fang Hospital, Chiang Mai,

** Department of Obstetrics and Gynaecology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

ABSTRACT

A married hill-tribe woman aged 35 years was presented with a left asymptomatic pelvic mass for 7-8 months. The operative findings revealed a large wandering spleen of normal general appearance and the other normal abdomino-pelvic organs. She was treated by splenectomy. No complications were found postoperatively and within 3 months of follow up. Wandering splenomegaly is a rare cause of pelvic mass, but the gynaecologist should be beware of its possibility.

Key words : wandering splenomegaly, pelvic mass

Pelvic mass is an usual gynaecological condition.⁽¹⁾ The mass commonly originates from the reproductive organs, e.g., the uterus, oviducts and ovaries, but bladder, caecum, colon and lymph nodes may be the origins. The pathologic processes of mass include inflammation, infection and neoplasm. The enlarged spleen descending to be pelvic mass is a rare condition. This case report presents a married

hill-tribe woman who came to Fang Hospital with a pelvic mass of 7-8 months duration and was diagnosed to be wandering splenomegaly postoperatively.

Case Report

A hill-tribe female farmer, 35 years of age, came to Fang Hospital with a complaint of asymptomatic mass at left lower abdomen for 7-8

months and no abnormal symptoms concerning defecation and micturition. On history taking, she had come to a community hospital 3 months ago because of this mass and the operation was performed. After the operation, the mass still appeared and she was not told of what had been done or what was the nature of the mass. Continued growing of the mass caused her to come to Fang Hospital. Her menstrual cycles were regular. She could not remember her last menstrual period and contraception was not used. She had two children who died of fever at one and two years of age respectively.

On physical examination, the general appearance of patient was good with no fever, no anaemia and no jaundice. The vital signs were namely ; temperature 36.8°C, pulse rate 80/min, blood pressure 110/70 mmHg and respiratory rate 18/min. All systems were examined and found to be normal, except a low midline scar and a mass in the left pelvis. The mass had firm consistency and was 15 x 20 cm in size, smooth surface, freely mobile in all directions, not tender and could be palpated clearly apart from the uterus. The provisional diagnosis was left ovarian tumour.

Pre-operative laboratory investigations were haematocrit 42 % volume, white blood count 5,400 cell/cu.mm., neutrophils 64 %, lymphocytes 33 % and eosinophils 3%, adequate platelets, blood group "O" and normal chest film.

The operation was performed under general anaesthesia. A low midline incision on the previous scar was made from just below the umbilicus to the symphysis pubis. The findings revealed a small amount of clear colourless peritoneal fluid, normal uterus, both oviducts and ovaries (Fig. 1). The liver and other abdominal organs except spleen, were normal. The

abnormal mass was located in the left pelvic cavity and lied on the reproductive organs. The external feature of that abnormal mass appeared like a spleen. It was deep red, smooth surface, firm consistency, and 20 x 12 x 3 cm in size. (Fig. 2,3) It also had 20 cm stalk which ended near the stomach. The mass was removed together with clear colourless peritoneal fluid for cytology. The operating time was 55 minutes. Blood loss was minimal and no immediate complications occurred during operation.

The patient had routine postoperative care without antibiotic. The blood was drawn for malarial detection, haemoglobin typing and red blood cell morphology and all of which resulted in negative findings for malarial detection, AA₂ Hb typing and normal red blood cell morphology. Aspiration of bone marrow revealed normal findings. No complications occurred.

The patient was discharged on the fourth postoperative day, but she did not go home until the tenth postoperative day waiting for her cousin to take her home.

One week later, she came back to the hospital with a fever. Malarial infection was diagnosed and she was admitted. Plasmodium vivax infection was treated by chloroquine and primaquine for three days. She was discharged on the fourth day after admission and was told to take further 12 day course primaquine at home.

On follow up at one and three months interval after operation, the patient was found to be normal on examination.

Pathological findings : (Fig. 4,5,6)

Peritoneal fluid : no malignant cells are detected.

Spleen :

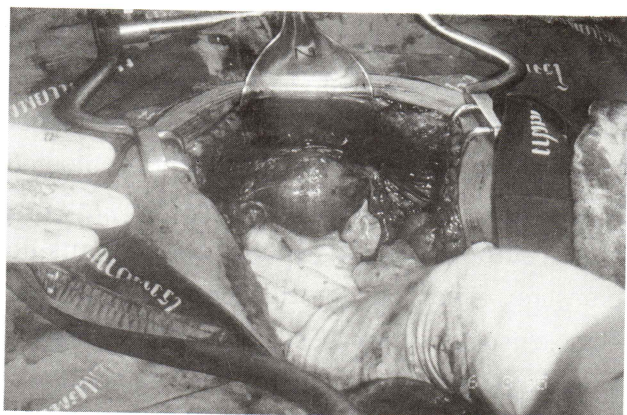


Fig. 1. Normal pelvic organs.

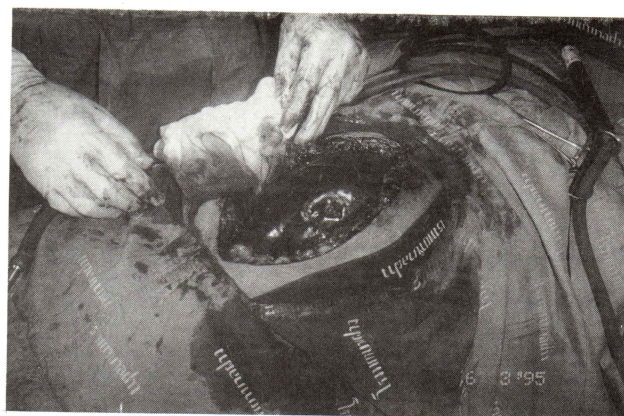


Fig. 2. Pelvic mass-wandering spleen.



Fig. 3. Pelvic mass-wandering spleen.



Fig. 4. Macroscopic appearance of the spleen (20 x 12 x 3 cm).



Fig. 5, 6. Microscopic description : enlarged white pulps with lymphoid follicles and prominent germinal centres. There are congested red pulps and extramedullary haemopoiesis.

Macroscopic description : specimen measures 20 x 12 x 3 cm. Multiple sections present prominent white pulps and congested red pulps.

Microscopic description : enlarged white pulps with lymphoid follicles and prominent germinal centres. There are congested red pulps and extramedullary haemopoiesis.

Diagnosis : Spleen, hyperplastic white pulps and reticuloendothelial hyperplasia with extramedullary haemopoiesis.

Discussion

Ectopic spleen, otherwise known as "wandering spleen" or "floating spleen", is a very rare condition.⁽²⁻⁵⁾ From the collection of 97 reported cases in the world,⁽²⁾ Abell concluded that most cases were caused by congenital or acquired stretching and lengthening of the anchoring peritoneal folds, suspensory ligaments or abdominal muscles. These combined conditions made the spleen to be malposition.^(2,3) Abell also found that 92 of these 97 cases were female.⁽²⁾ Ectopic spleen might be asymptomatic or symptomatic. In the case of symptomatic ectopic spleen, the patient usually presented with intermittent and/or chronic abdominal or pelvic pain, nausea, vomiting, or melena. The pain was from intestinal obstruction or distension or torsion of the pedicle and infarction of the spleen, resulting in rupture. The most serious complication of ectopic spleen was rupture of spleen.

Barloon reported a case that presented with a very large abdominal mass and no other abnormal symptoms.⁽⁶⁾ Operative and subsequent pathologic findings showed an ectopic spleen infiltrated by a well-differentiated lymphoma. Nino Murcia et al reported a case of 75-year old woman suffering from chronic

lymphocytic leukemia and presented with frequency of micturition.⁽⁷⁾ On physical examination revealed a pelvic mass, which was further investigated by ultrasonography and computed tomography. The investigation demonstrated a large ectopic spleen in the pelvis causing pressure effect on the bladder. Furthermore, ectopic spleen may result from splenomegaly caused by chronic malaria^(8,9) or other unexplained caused of splenomegaly.^(2,4,5)

Preoperative diagnosis of ectopic spleen is unusual because it is so rare that makes the surgeons ignore it. However, in the suspected case, there are many investigations that can be done preoperatively, e.g., ultrasonography, computed tomography, etc.^(7,10) The suggestive treatment of ectopic spleen is splenectomy in all of symptomatic cases because of its serious complication as mentioned above.^(2,3,9) In this case, the cause of the ectopic spleen may be originated by a congenital condition that caused lengthening of the anchoring peritoneal folds and suspensory ligaments and followed by relaxation of abdominal muscles from pregnancy and parturition. The final precipitating cause is thought to be splenomegaly from chronic malaria. Although, history of chronic malarial infection cannot be derived, the patient's residency in the endemic area of malaria and her return to hospital one week postoperative for treatment of malarial infection are the possible reasons. Splenectomy was performed in this case to prevent the mentioned serious complication.

References

1. Griffiths CT, Berkowitz R. The ovary. In : Kistner RW, editor. Gynecology principles and practice. 4th ed. Chicago : Year Book Medical Publishers, 1986; 306-11.

2. Abell I. Wandering spleen with torsion of the pedicle. *Ann Surg* 1933; 98: 722-35.
3. Maingot R. Splenectomy : indications and technique. *Lancet* 1952; 1: 629-39.
4. Simpson A, Ashby EC. Torsion of wandering spleen. *Br J Surg* 1965; 52: 344-6.
5. Anand SV, Davey WW. Surgery of the spleen in Nigeria. *Br J Surg* 1972; 52: 335-44.
6. Barloon TJ. Lymphoma presenting as an abdominal mass involving an ectopic spleen. *Am J Gastroenterol* 1984; 79: 684-6.
7. Nino-Murcia M, Friedland GW, Gross D. Imaging the effects of an ectopic spleen on the urinary tract. *Urol Radiol* 1988; 10: 195-7.
8. Zingman BS, Viner BL. Splenic complications in malaria : case report and review. *Clin Infect Dis* 1993; 16: 223-32.
9. Bispham WN. Malaria : its diagnosis, treatment and prophylaxis. Baltimore : William & Wilkins, 1944.
10. Swischuk LE, Williams JB, John SO. Torsion of wandering spleen : the whorled appearance of the splenic pedicle on CT. *Pediatr Radiol* 1993; 23: 476-7.