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Silent pelvic splenosis: Case report

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ABSTRACT

INTRODUCTION: Splenosis is a benign, usually asymptomatic, condition involving autotransplantation of splenic tissue that occurs frequently after splenic rupture caused by trauma or surgery [1]. Up to 67% of the patients presenting splenic rupture may develop splenosis [2]. The interval of time between the initial trauma and the diagnosis varies from 3 to 45 years with an average interval of 21 years [3]. Since the finding of this entity is usually accidental, the real incidence is not well known. Although splenosis following traumatic splenectomy after traffic accidents is well-documented in the literature, there do not seem to be many reported cases where splenosis produced gynecological complications [4]. There were fewer than 100 cases of splenosis reported since the first report of Buchbinder and Lipkoff in 1939 [5] in the English language medical literature of which only a minority appeared in the gynecological literature.

PRESENTATION OF CASE: A case of pelvic and omentum majus splenosis in a patient is presented.

DISCUSSION: Pelvic splenosis remains a rare finding in clinical practice. In most reported cases in the literature, the diagnosis was not considered before surgery. This approach may obviate the need for invasive evaluation for a primary or secondary neoplasm, and thus unnecessary surgery, and therefore preserve probable functional splenic tissue. Our case was diagnosed using non-surgical modalities.

CONCLUSION: Our case emphasizes the rare diagnosing of pelvic splenosis in the evaluating pelvic mass with the tissue evidence instead of surgery.

1. Case report

A 26-year-old female was admitted to our gynecology clinic for the pelvic masses, which were found in the routine examination through the ultrasound 3 months ago. The size of the mass did not reduce after she had taken xihuang pellet for 3 months, which had the efficacy activating blood circulation or dissipate blood stasis. She was admitted into our hospital for further diagnosis. The patient experienced trauma and splenectomy 17 years ago. The patient had no family history of related diseases.

At admission, we did not find rebound tenderness or palpable through abdominal examination or bimanual examination. The patient's CA125 serum level was 70.42 U/ml (normal value 0–35 U/ml). Others serum-human tests revealed negative findings. On transvaginal ultrasound pelvic scanning hypervascular rectouterine pouch nodules were demonstrated. (Fig.1)

To further investigate the pelvic masses, pelvic computed tomography scan was performed, using intravenous contrast material. A residual small deformed, multiple small circle nodules were seen in the rectouterine pouch, and multiple small nodules measuring up to 1.4 cm in diameter were seen in the omentum majus. Two small pelvic masses were noted, both in the rectouterine pouch, showing similar density and appearance to the other nodules.

The patient underwent culdocentesis guided by ultrasound. Cytopathology of the biopsy samples revealed nonmalignant cells and tissue. (Fig. 2)

2. Discussion

Ectopic splenic tissue can be found in the body as two distinct forms: accessory spleens and splenosis. Accessory spleens are congenital and arise from the left side of the dorsal mesogastrium during the embryological period of development [6]. An accessory spleen has normal splenic histology with its blood supply uniformly arising from a branch of the splenic artery. The blood supply in splenosis however, is derived from the surrounding tissues and vessels, without any association to the splenic artery [7]. The tissue in splenosis usually reveals distorted architecture with no hilum, a poorly formed capsule and tissue of any shape or size. Splenosis is usually found incidentally and unless symptomatic, therapy is not indicated. However, due to the rarity of this condition and the concern for malignancy with the growth of the nodules over time, a tissue diagnosis is usually pursued—most often intraoperatively [8]. In doubtful cases when the diagnosis of splenosis is suspected, a gammagraphic study with injected 99Tcm-labelled, heat-damaged autologous erythrocytes may confirm the diagno-

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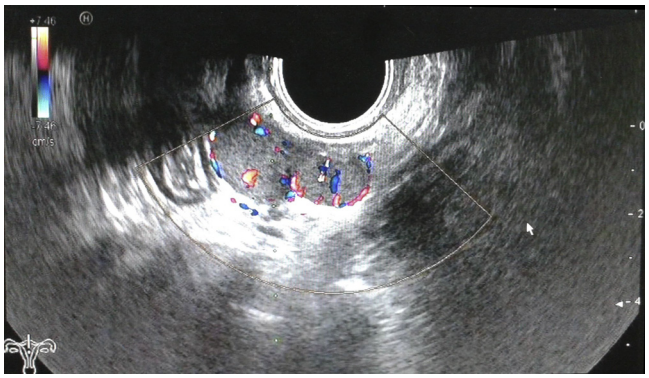

Fig. 1. Power doppler image demonstrating rich vascularization of the pelvic masses.

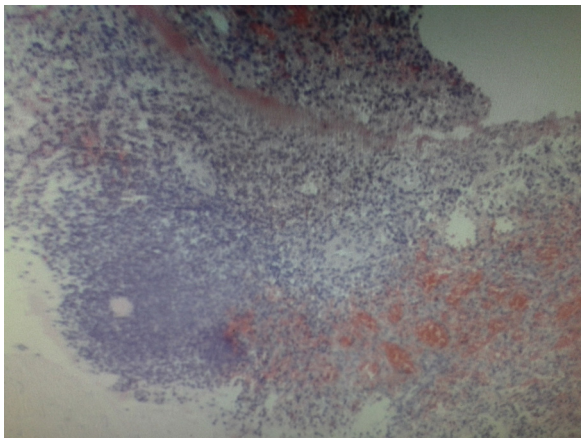

Fig. 2. Histopathology revealed splenic tissue, resulting in a diagnosis of pelvic splenosis.

sis [9]. CT was shown to be less sensitive in the detection of small nodules of residual splenic tissue than was radionuclide scanning. SPECT may be helpful in diagnosing splenosis because it provides accurate three-dimensional images and more detailed functional information than standard CT scans [10]. Our case was diagnosed using non-surgical modalities. Our case emphasizes the rare diagnosing of pelvic splenosis in the evaluating pelvic mass with the tissue evidence instead of surgery. In conclusion, pelvic splenosis should be included in the differential diagnosis of patients with a history of splenic trauma or spleen removal who present with abdominal or pelvic nodules. Once considered a rare condition, abdominal or pelvic splenosis is now thought to occur in upwards of 65% of splenic rupture cases [11].

3. Conclusion

Pelvic splenosis remains a rare finding in clinical practice. In most reported cases in the literature, the diagnosis was not considered before surgery. The autotransplanted splenic tissue of splenosis, similar to accessory spleens, is thought to perform normal splenic function [12]. Therefore, Howell-Jolly and Heinz bodies, siderocytes and other abnormal red blood cells may not be present on a peripheral smear, despite these patients having a history of splenectomy [13]. Our patient had a 17 year interval between splenectomy and the final diagnosis. All investigators agree that there is no logical reason to remove asymptomatic implants of splenic tissue. Accordingly, the patient was conservatively observed. It is likely that residual splenic tissue may have an immunoprotective effect if sufficient splenic parenchyma is present, but it does not completely restore the opsonic deficiency caused by splenectomy [12]. This approach may obviate the need for invasive evaluation for a primary or secondary neoplasm, and thus unnecessary surgery, and therefore preserve probably functional splenic tissue.

Conflict of Interest

None declared.

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