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Taiwanese Journal of Obstetrics & Gynecology 52 (2013) 135–136

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Research Letter

Chronic pelvic pain secondary to leiomyoma of the round ligament

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Accepted 17 October 2012

Leiomyomas (myomas, fibroids) of the round ligament of the uterus are very rare, and two-thirds of them occur in the extraperitoneal portion, including inguinal and vulvar locations [1]. Myomas of the round ligament are reported to be more common on the right side [1]; those found on the intraperitoneal portion (abdominal site) and the left side are extremely rare [2,3]. We report a case of myoma of the round ligament in a 52-year-old postmenopausal woman. The anatomic location was unique, causing an unusual clinical presentation—chronic pelvic pain—and challenging the differential diagnosis from tumors of the ovary or the abdominal wall.

A 52-year-old, gravida 6, para 4 woman, referred from a primary physician, had suffered for 2 years with chronic pelvic pain, which attacked off and on unpredictably. The pain occurred often after exercise and long-term standing, and subsided after bed rest. Non-steroid anti-inflammatory drugs were sometimes prescribed for the pain. Menopause occurred 3 years previously without hormone replacement therapy. Her past history, including medicine and surgery, was unremarkable.

Transvaginal ultrasound revealed a 40 mm × 35 mm × 50 mm, hypervascular, adnexal solid tumor with a low resistance index in the left pelvic cavity. Results of blood tests, including cancer antigen 125 and stool routine, were within normal limits. The laparoscopic approach was performed after careful explanation. Laparoscopy showed a cobblestone mass with a hypervascular surface extending from the left round ligament (Fig. 1). The left

ovary and tube were of normal appearance (Fig. 2). The mass was removed completely and the histopathology revealed leiomyoma. The postoperative course was uneventful, and the patient's chronic lower abdominal pain subsided completely.

Uterine myomas (called fibroid and leiomyomas) are very common, and often found within the uterus, including intramural, submucosal, and subserosal locations [4]. The majority are asymptomatic, although some require a definite treatment [5,6]. By contrast, myomas can also be found in unique positions, such as the intraligament (broad ligament), cervix, and round ligament, although myomas in these locations are rare. These unusual locations sometimes cause symptoms and challenge the differential diagnosis.

In our presented case, the patient complained of chronic pelvic pain, which was often exacerbated when the patient

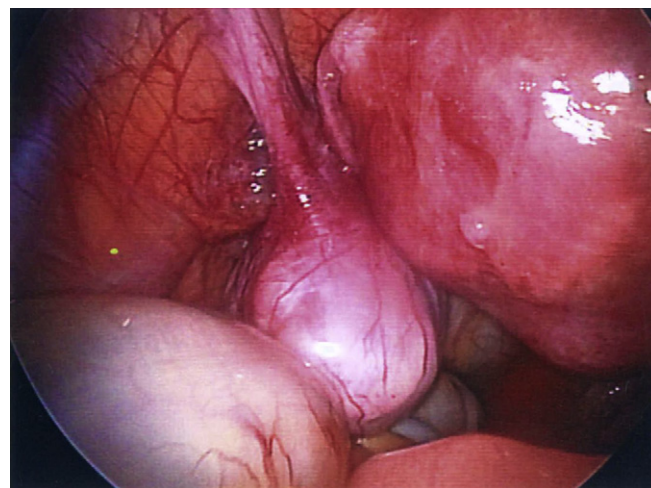


Fig. 1. A cobblestone mass with a hypervascular surface extending from the left round ligament. The tumor was located in the left adnexa area, with a cul-de-sac.

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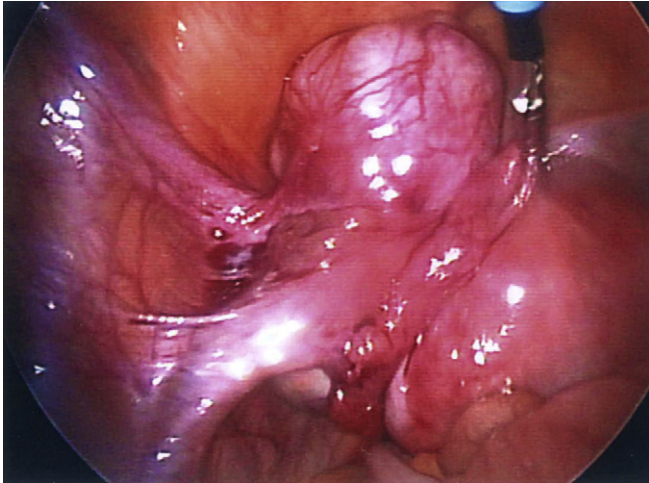


Fig. 2. After fixing the left fallopian tube, the mass arising from the round ligament on the left side can be clearly seen. Below the infundibular-pelvic ligament, the left-side ovary is clearly demonstrated.

exercised or with long-term standing. That this tumor caused pelvic pain is reasonable, since the stretch of the round ligament could be easily identified (Fig. 1). In addition, the myoma of the round ligament in this case was attached to the left ovary, so the myoma might not be easily separated from the left ovary in the imaging study. Finally, the location of the myoma in this case might change from the vesico-uterine space to the cul-de-sac, resulting in much confusion when striving for an accurate diagnosis.

Besides the above-mentioned reasons, there are other reasons for the patient's symptoms. First, the patient was menopausal and did not have hormone therapy. The myoma of the round ligament, similar to other uterine myomas, might shrink progressively after menopause, since estrogen is the major promoter of myoma growth [7]. The original mass might be

large enough to fix on the vesico-uterine space. In our situation, no stretching or shearing force was noted on the round ligament. When the tumor is small and has the ability to move, stretch or possible torsion might occur in myomas of the round ligament.

In this case, we further confirmed the value of laparoscopy [8,9], which overcomes the limitation of imaging studies, although laparoscopy is still considered as one of the more invasive procedures compared to noninvasive image studies, such as ultrasound, computed tomography, magnetic resonance imaging, or positron emission tomography.

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