

C A S E R E P O R T

Preoperative sonographic assessment of a leiomyoma of the round ligament

Francesca Arezzo¹, Gerardo Cazzato², Vera Loizzi³, Viviana Cataldo¹, Michele Mongelli¹, Claudio Lombardi¹, Gennaro Cormio¹

¹Department of Biomedical Sciences and Human Oncology, Obstetrics and Gynecology Unit, University of Bari “Aldo Moro”; ²Department of Emergency and Organ Transplantation, Pathology Section, University of Bari “Aldo Moro”; ³Interdisciplinary Department of Medicine, Obstetrics and Gynecology Unit, University of Bari “Aldo Moro”

Abstract. We report a case of leiomyoma of the round ligament in a 59-year-old woman, with suspicion of ovarian cancer during gynaecological routine examination. Transvaginal ultrasound showed a heterogeneous solid pelvic mass in the left adnexal area but during the evaluation of its anatomical relation, both ovaries appeared to be regular and the neoformation was separated from the uterus. Surgical and pathological examination revealed well-defined solid mass arising from the left round ligament of the uterus identified as leiomyoma with myxoid degeneration. Leiomyomas of the Round Ligament of the uterus are very rare tumors and they may arise as inguinal, pelvic or vulvar masses miming an inguinal hernia, a lymphadenopathy or a solid adnexal mass. The preoperative sonographic assessment is essential to perform a correct differential diagnosis and provide a right management of the case.

Key words: leiomyoma, round ligament, preoperative sonographic assessment

Introduction

Fibroids are the most common gynecological disease; they are monoclonal benign tumors of uterus arising in the smooth muscle cells of myometrium with a prevalence of 20%–25% in women older than 35 years. Extra-uterine fibromas are not as common as uterine fibroids. They may grow in the broad ligament or in other sites where smooth muscle exists (1).

The round ligament is a remnant of the embryonic gubernaculum that emerges at the uterine horns and passes through the inguinal canal to attach to the labia majora. The round ligament consists of smooth muscle fibers and connective tissue (2).

Case Presentation

A 59-year-old woman came to our institute for suspicion of ovarian cancer raised at a previous

gynaecological routine examination. She was asymptomatic. She had no family history for malignancy. Her past medical history was unremarkable. Her laboratory tests were within normal range as well as her serum CA-125 level. Menopause occurred 9 years previously.

With a transvaginal ultrasound, a heterogeneous solid pelvic mass with anechoic areas was detected (Fig. 1–Panel A). The mass was in the left adnexal area. This neoformation was 64x43x45 mm and presented well-defined margins, shadows and moderate vascularization. A careful ultrasound evaluation revealed that the mass was next to left ovary with a positive sliding sign. Left ovary was regular (Fig. 1–Panel B). The neoformation was separated from the uterus which presented regular morphology and echostructure. The contralateral ovary had regular echostructure also. The mass appeared as a myometrial neoformation with unclear origin. No free fluid or any other suspicious findings were observed in pelvis ultrasound examination.



Figure 1. Panel A: Solid heterogenous pelvic mass. Panel B: Ultrasound evaluation of the anatomical relation of the mass respect to left ovary. Panel C: Macroscopic specimen.

Surgical exploration revealed a normal uterus, with normal ovaries and Fallopian tubes as well. A well-defined solid mass was seen arising from the left round ligament of the uterus (Fig. 1–Panel C).

A hysteroneomyectomy was performed. The postoperative course was uneventful and the patient was discharged on the second postoperative day. Definitive histopathological diagnosis was leiomyoma with myxoid degeneration.

Discussion

Leiomyomas of the Round Ligament (LRLs) of the uterus are very rare tumours. The exact incidence is not known. LRLs can occur as inguinal, pelvic or vulvar masses. While most of the cases are asymptomatic, the clinical presentation can simulate either a inguinal hernia (3), a lymphadenopathy when they originate from inguinal region, or a solid adnexal mass when they originate from abdominal region (4). They arise mostly in premenopausal middle-aged women and in patients with a history of uterine leiomyomas (5).

LRLs are very uncommon: therefore they present a greater diagnostic challenge.

Preoperative sonographic assessment is essential to perform a correct differential diagnosis.

The ultrasound features of a LRL are similar to a uterine fibroid. The distinctive aspect is instead the relationship of this mass with the surrounding organs; no connection with the uterus neither with the ovary was found.

Ethics: Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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Correspondence

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Francesca Arezzo, MD

Department of Biomedical Sciences and Human Oncology, Obstetrics and Gynecology Unit, University of Bari "Aldo Moro"

Piazza Giulio Cesare 11, 70124 Bari, Italy

Phone: ++39 080 5592232

E-mail: francescaarezzo@libero.it