

Caso Clínico / Radiological Case Report

IMAGING DIAGNOSIS OF AN UTERINE LIPOLEIOMYOMA, A RARE ENTITY

DIAGNÓSTICO IMAGIOLÓGICO DE LIPOLEIOMIOMA UTERINO, UMA ENTIDADE RARA

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Abstract

Uterine lipoleiomyoma is a rare benign tumour arising from the myometrium, composed of smooth muscle cells and mature adipocytes. It is easily misdiagnosed preoperatively on radiological imaging studies as an uterine myoma or an ovarian mature teratoma. We report a case of a postmenopausal woman who presented with pelvic pain over the last 6 months. On gynaecological examination the uterus was enlarged with a painless nodular formation. Findings on transvaginal ultrasound (US) and magnetic resonance imaging (MRI) raised the suspicion of an uterine lipoleiomyoma. The patient was operated on and the suspected diagnosis was confirmed by the histological examination. In this paper we report the typical ultrasonographic and MRI findings of an uterine lipoleiomyoma.

Key-words

Lipoleiomyoma; Smooth muscle; Uterus; Menopause; Ultrasonography; Magnetic resonance imaging.

Resumo

O lipoleiomioma uterino é um tumor benigno raro com origem no miométrio, composto por células musculares lisas e adipócitos maduros. Trata-se de um tumor facilmente diagnosticado como mioma uterino ou teratoma maduro do ovário nos estudos imagiológicos pré-operatórios. Neste artigo é apresentado um caso de uma mulher pós-menopausa com clínica de dor pélvica com 6 meses de evolução. No exame ginecológico o útero encontrava-se aumentado de volume por uma formação nodular indolor. Os achados da ecografia ginecológica transvaginal e da ressonância magnética pélvica levantaram a suspeita de lipoleiomioma uterino. A doente foi submetida a tratamento cirúrgico e o diagnóstico foi confirmado no estudo histológico da peça operatória. Descrevem-se os achados ecográficos e na ressonância magnética deste tumor uterino.

Palavras-chave

Lipoleiomioma; Músculo liso; Útero; Menopausa; Ecografia; Ressonância magnética nuclear.

Introduction

Lipoleiomyomas are uncommon benign neoplasms of the uterus, considered to be a variant of uterine myomas. The reported incidence in the literature varies from 0,03% to 0,2%. It have been reported about 50 cases in the last 15 years [1, 2, 3]. These tumours are usually found in postmenopausal obese women with typical uterine leiomyomas. Although most patients are asymptomatic, they can present with symptoms similar to leiomyomas of the same size and location, such as palpable mass, menstrual abnormalities and abdominal/pelvic pain [2, 4-6]. They are most frequently found in the uterine corpus as intramural fibroids, but they can also be found anywhere in the uterus or cervix and may be subserosal [4-7]. Although its definite diagnosis is histological, nowadays, with the advancement of imaging techniques, namely ultrasound (US) and magnetic resonance imaging (MRI), we can have strong diagnostic accuracy of these lesions preoperatively [1,

8-13]. We report a case of an uterine lipoleiomyoma whose diagnosis was suspected preoperatively in the US scan and MRI and was confirmed postoperatively by the histological examination.

Case report

A 54-year-old postmenopausal woman presented with pelvic pain over the last 6 months. The patient was obese (BMI: 35,26 kg/m²), with high blood pressure, dyslipidemia and type II diabetes Mellitus. On gynaecological examination the posterior vaginal fornix was occupied by a nodular formation, of elastic consistency, painless, apparently of uterine origin. The uterus was enlarged and could be felt abdominally 10 centimeters (cm) above the symphysis pubis. Transvaginal US revealed a large, well-defined, heterogeneously hyperechoic mass with areas of less echogenicity, with regular margins, measuring 8,2x5,7x8,8 cm, surrounded by a hypoechoic rind, in the

posterior wall of the uterus, and it raised the suspicion of an uterine lipoleiomyoma (Figure 1).

An MRI was performed and it showed a mass arising from the posterior wall of the uterus, which had hyperintense signals on T1 and T2 weighted images, which suppressed on a fat-saturation sequence (Figures 2, 3 and 4).

A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. A large well circumscribed solid mass with yellow cut-surface was found at the uterine body. Microscopically, the tumour proved to be a lipoleiomyoma consisting of smooth-muscle cells and mature adipose tissue. The postoperative period was uneventful and the patient was discharged home at the fourth day after surgery, clinically well.



Fig. 1 - Uterine lipoleiomyoma suspected in transvaginal US.

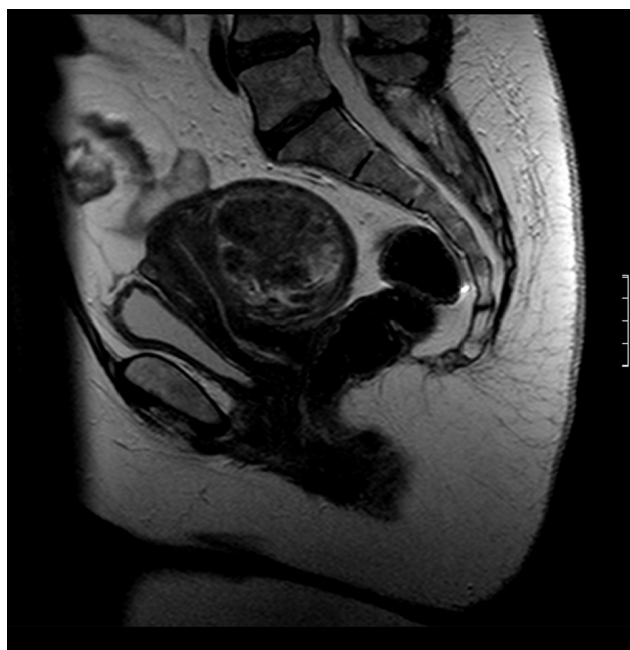


Fig. 2 - Uterine lipoleiomyoma suspected in magnetic resonance imaging – T2 weighted image.



Fig. 3 - Uterine lipoleiomyoma suspected in magnetic resonance imaging – T1 weighted image.

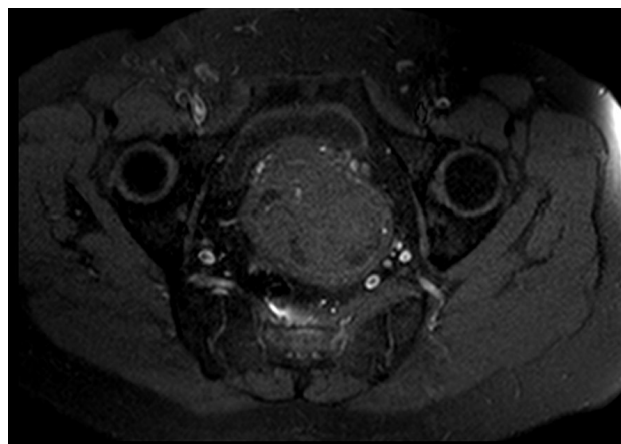


Fig. 4 - Uterine lipoleiomyoma suspected in magnetic resonance imaging – fat-saturation sequence.

Discussion

Lipoleiomyomas are benign uterine tumours. The exact etiology is not well known, but they are mostly thought to represent fatty metamorphosis of the smooth muscle cells of leiomyomas. Histologically they consist of smooth-muscle tissue, most commonly of the spindle-cell type, admixed with varying amounts of mature adipose tissue, without cytological atypia [9]. Typical features in US and MRI makes the diagnosis easier. The sonographic appearance is that of a heterogeneous mass, with hyperechoic areas and areas of less echogenicity, partially encased by a hypoechoic rind. The hyperechoic areas represent the fatty component of the tumour and the hypoechoic rind is thought to represent a layer of myometrium surrounding the fatty component [1, 8-15]. On MRI, the lipomatous nature of the lesion is suggested by high signal intensity on T1 and T2 weighted images and chemical shift artifacts in the lesion. The fatty components may be confirmed using fat-suppression techniques [7-15]. The differential diagnosis of a lipomatous mass in the pelvis includes benign cystic ovarian teratoma, nonteratomatous lipomatous ovarian tumour, benign pelvic lipoma, liposarcoma, lipoblastic lymphadenopathy and retroperitoneal cystic hamartoma [11, 12]. Identification of the uterus as the organ of origin and

knowledge of the characteristic features of the lesions in imaging studies, as was stated above, is the key to diagnose the lipomatous lesions in the pelvis. Such a differentiation is crucial because lipomatous uterine tumours are generally asymptomatic and do not require surgery, unless they start causing symptoms [11]. In our case, although we have suspected the diagnosis, we decided to perform a total

abdominal hysterectomy because the patient was symptomatic with bilateral salpingo-oophorectomy, as she was a postmenopausal woman.

This case reminds us a very rare gynaecological entity and highlights the importance of a correct preoperative diagnosis to avoid unnecessary surgical morbidity.

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