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Giant angioleiomyoma of uterus: A case report with focus on CT imaging

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ABSTRACT

We report a rare case of giant angioleiomyoma located in the uterus and detected in a 37-year-old woman. The uterus is an extremely rare location for angioleiomyoma. The definitive diagnosis is usually obtained only after the histopathologic examination because the imaging criteria are challenging for this disease. We focused our attention on the main computed tomography features able to provide a robust preoperative diagnosis of this rare clinical entity.

Introduction

Angioleiomyoma of uterus is a very rare benign tumor, originating from mesenchymal tissue [1]. It develops in the lower extremities of middle-aged women and rarely affects other body regions [1]. The uterus is an extremely rare location for angioleiomyoma [2,3]. On imaging, the diagnosis is very difficult, and the final diagnosis is usually formulated only when the histopathologic investigation has been performed [1].

We report a rare case of giant angioleiomyoma detected in a 37-year-old woman who came to our attention for anemia, menorrhagia, and a very prominent abdomen.

We focused our attention on the main computed tomography (CT) features useful to provide a robust preoperative diagnosis of this rare clinical entity.

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Case presentation

A 37-year-old female was admitted to the surgery-gynecology-oncology department with a 1-year history of abdominal distension, menorrhagia, and dyspepsia. A central abdominal mass was evident on clinical examination. The CA-125 and hemoglobin levels were 304 IU/mL (normal < 35 IU/mL) and 9 g/dL, respectively.

Ultrasound scan revealed a large solid abdominal mass, extending from pelvis to epigastric region, suggesting a malignant ovarian tumor or a uterine sarcoma.

An abdomino-pelvic CT with and without contrast medium was performed, showing an oval giant abdominal mass, with dimensions of 32 × 30 × 25 cm, occupying the entire abdomen with suspect origin from uterine fundus.

On contrast-enhanced CT scan, in the arterial and venous phase, the giant mass showed multiple vascular branches. In the late phase, the mass showed an inhomogeneous "sand-like" enhancement (Fig. 1 and Fig. 2).

At CT scan the giant mass was found inseparable from uterine fundus. In addition, a large bilateral pelvic varicocele and an evident uterine arteries hypertrophy were present (Fig. 3). All the abdominal organs were dislocated by the mass without any evidence of infiltration.

All these findings supported the hypothesis of a uterine origin of the mass. Moreover, the abundant presence of vascular structures within the mass suggested the hypotheses of a giant uterine angioleiomyoma.

The laparotomy, performed under general anesthesia, confirmed the uterine origin of the giant mass (as reported in Fig. 4); then, a total hysterectomy was performed. The weight of the giant mass was 12.5 kg.

Macroscopically, the cut surfaces were white with a variegated appearance with pinkish brown and gray areas (Fig. 5A and B); no region of necrosis were found within the lesion. Histologically, the tumor was composed of interlacing fascicles of spindle cells with interspersed abundant thick walled blood vessels (Fig. 5C and D).

Discussion

Angioleiomyoma of the uterus, also known as vascular leiomyoma, is a very rare benign tumor, originating from the mesenchymal tissue and composed of smooth muscle cells and thick-walled vessels [1]. Angioleiomyoma occurs more frequently in the lower extremities and rarely affects other body regions [1]. It represents the 0.34%-0.40% cases of uterine leiomyomas [2].

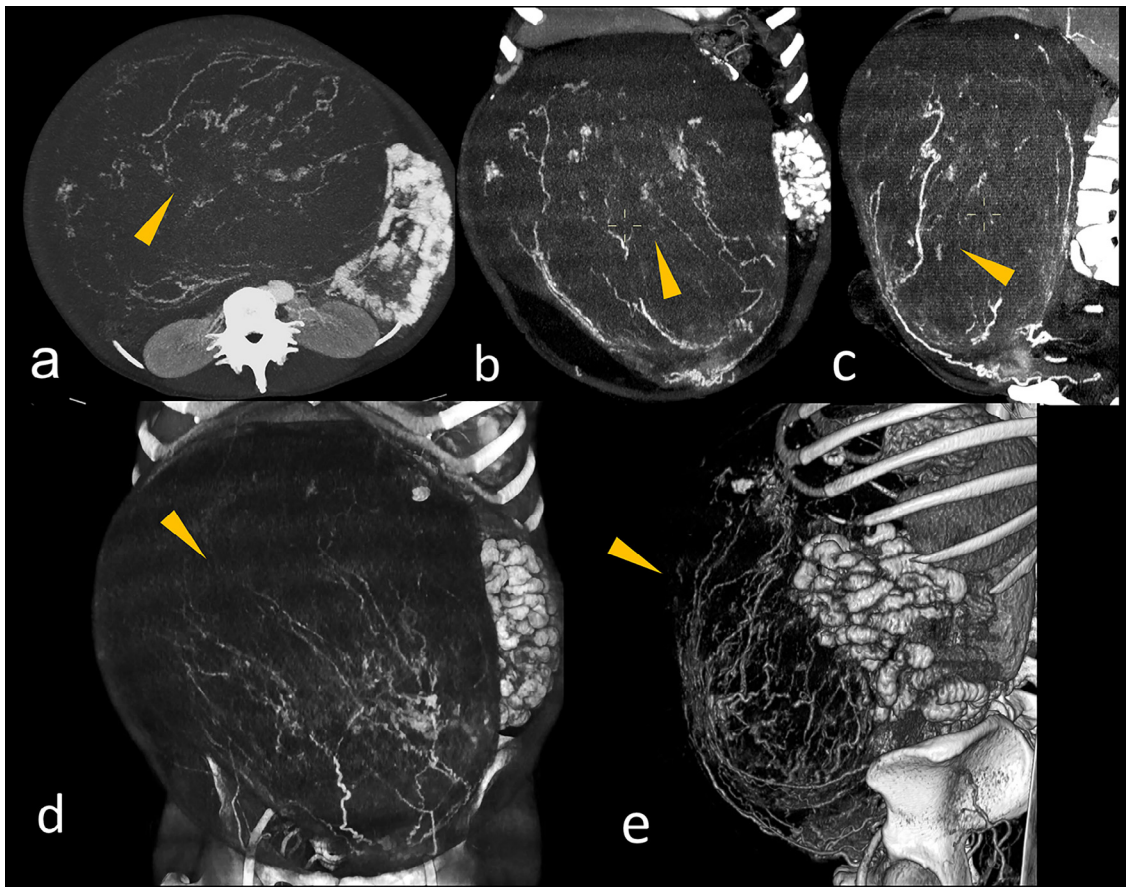

Fig. 1 – Axial (A), coronal (B), and sagittal (C) computed tomography (CT) maximum intensity projection (MIP) images showing multiple vessels crossing the abdominal mass. CT coronal (D) and sagittal (E) volume-rendered image provides good 3D definition of the vascular distribution within the mass.