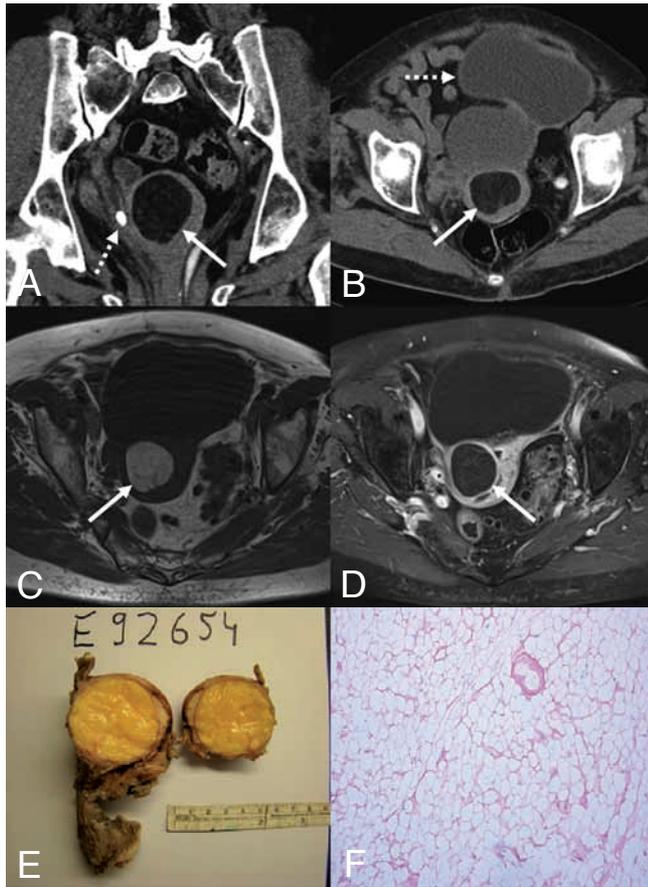


IMAGES IN CLINICAL RADIOLOGY

*Uterine lipoleiomyoma*

M. Devooght, N. Favoreel, S. Gryspeerdt, B. van Holsbeeck¹

A 74-year-old, postmenopausal woman presented to her urologist with complaints of urge incontinence. Her medical history consisted of a sectio, diabetes mellitus, hypertension and hypercholesterolemia. Clinical examination showed a cystocele. A bladder and renal ultrasound was performed during consultation revealing right hydronephrosis grade 2 and left hydronephrosis grade 1 (not shown). The bladder was normal. Incidentally a fluid-containing structure was noted measuring 10 cm in diameter (not shown). CT urography showed a cystocele and a right distal ureteral stone (dotted arrow), explaining the hydronephrosis (Fig. A). The left ovary showed a large septated cystic mass, matching the ultrasound finding (Fig. B, dotted arrow). Furthermore a well-circumscribed, predominantly fatty mass was discovered in the uterus with dimensions of 42 x 34 x 36 mm (Fig. A,B, arrow). MRI T1-weighted images showed a well-defined, uniformly high-intensity uterine mass with discrete septae (Fig. C, arrow). The mass suppressed on the fat-saturated images (Fig. D, arrow). MRI additionally showed the intramural location of the uterine mass and confirmed the thin septae in the cystic mass of the left ovary (not shown). Based on these findings the diagnosis of uterine lipoleiomyoma and mucinous cystadenoma of the left ovary was made. A hysterectomy and adnexectomy was performed. Pathology of the uterine mass revealed 98% mature fat with sporadic areas of well-differentiated smooth muscle cells (Fig. E, F). No mitotic activity was reported. These findings are consistent with a lipoleiomyoma, almost entirely composed of lipocytes. The right adnexal mass consisted of a mucinous cystadenoma.

Comment

Uterine lipoleiomyoma is a rare benign tumor of the uterus. Incidence reportedly varies from 0,03 to 0,2%. They are typically found in postmenopausal women and symptoms may include a palpable mass, pelvic pain and uterine bleeding however, most patients, as in our case, are asymptomatic. Uterine lipoleiomyomas are mostly found intramurally in the uterine corpus. However, they can also be found subserosal or elsewhere in the cervix or the broad ligament (1). Histologically they are composed of variable amounts of lipocytes, smooth muscle cells and fibrous tissue. The pathogenesis remains unclear, although fatty metamorphosis of smooth muscle cell is usually assumed. Other theories include misplaced embryonic fat cells, lipocytic differentiation of primitive connective or mesenchymal tissue, perivascular extension of peritoneal or retroperitoneal fat, and fatty infiltration of connective tissue (1). Malignant transformation of uterine lipoleiomyoma has been reported once. A percutaneous needle biopsy under sonography guidance is helpful to differentiate with similar uterine tumors including spindle cell lipoma, angiolipoma, angiomyolipoma, leiomyoma with fatty degeneration, atypical lipoma and well-differentiated liposarcoma. The tumor is considered benign after a 5-year follow-up period, so either watchful waiting or surgical resection is required depending on clinical presentation.

Reference

1. Loffroy R., et al.: Lipoleiomyoma of the Uterus: Imaging Features. *Gynecologic and Obstetric Investigation*, 2008, 66: 73-75.

¹. Department of Radiology, Stedelijk Ziekenhuis Roeselare, Belgium.