

Vaginal ultrasound for imaging of a urinary bladder mass and treatment of a large leiomyoma of the urinary bladder in pregnancy

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Introduction

The most common urinary bladder tumors are of epithelial origin. The incidence of bladder leiomyoma, a benign smooth muscle tumor, is 0.43% and is up to three times higher in women than in men. Leiomyoma of the bladder in pregnancy has been described in the literature in only a few cases [1].

Case study

An asymptomatic 32-year-old secundigravida attended a routine second-trimester screening ultrasound examination. During the examination, a 5-cm, slightly hyperechogenic, homogeneous tumor from the anterior bladder wall was revealed (Fig. 1). Magnetic resonance imaging (MRI) was performed, and a homogeneous, well-defined tumor was

evaluated as suspected bladder leiomyoma and further confirmed by transurethral biopsy (Fig. 2). Follow-up scans showed no growth of the tumor. After delivery by planned C-section at week 40, an open resection of the bladder mass was performed by a urologist. Localization of the mass on the anterior wall of the bladder allowed for safe removal of the tumor from the macroscopically normal tissue, without blood loss (Figs. 3 and 4). Histological examination confirmed leiomyoma with no residual tissue. At the 1-year follow-up, the patient had no urinary symptoms and no signs on ultrasound of disease recurrence.

Discussion

Leiomyoma incidence is generally higher in pregnancy. One reason may be hormone sensitivity, with rates of growth semi-quantitatively related to estrogen and progesterone receptor levels [1].

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Fig. 1 Vaginal ultrasound: a large, solid mass inside the urinary bladder



Fig. 2 Magnetic resonance imaging scan, T2-weighted image, coronal section: homogeneous, smooth-margined mass in the urinary bladder



Fig. 3 Intraoperative view: mostly exophytic leiomyoma inside the urinary bladder

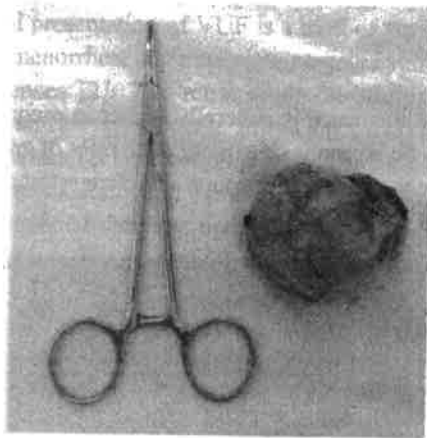


Fig. 4 Specimen: excised tumor

Ultrasound examination is the imaging method of choice for detecting leiomyoma [2]. During the ultrasound examination, it is important not only to focus on the fetus but also on the urinary bladder. In the absence of symptoms and given the benign origin of the tumor, surgical treatment could be postponed in this case to the end of the pregnancy and performed in a single setting. The single case of recurrence described in the literature was resolved by repeat excision [3].

Compliance with ethical standards

Conflicts of interest None.

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

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