

Case-of-the-Day Answers

Gynecologic Ultrasound

Submitted by

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Clinical History

A 42-year-old woman, G3P2012, presented with mixed stress and an urge urinary preponderance of stress component for several years. She reported regular cycles every 28 days lasting 3 to 5 days. On exam, the uterus and adnexa were unremarkable. During the workup, pelvic ultrasound was requested, which revealed a mass effect in the right cornual area that was echogenic and nonvascular (Figures 1–4). The patient had a strong family history of endometrial cancer.

Diagnosis: osseus metaplasia.

On hysteroscopy, the endometrial cavity and right cornual area were normal, and multiple biopsies taken showed fibrosis with osseus metaplasia.

Discussion

Endometrial ossification is a rare disease, and its etiology and pathogenesis are controversial. It is often misdiagnosed. Most reported cases are related to pregnancy.¹ The most widely accepted hypothesis is that the ossification represents retained fetal bones following an abortion. It has also been related to transformation of uterine tissue to bone in response to inflammation and the reparative process induced by abortion.² In 1884, Virchow attributed the formation of bone in the endometrium to spontaneous differentiation of fibroblasts into osteoblasts.³ A recent study by Parente et al concluded that the origin of the ossified tissue was maternal in all 8 cases that were sampled, suggesting that it is not retained fetal parts.⁴

Osseous metaplasia has been associated with secondary infertility⁵ and dysmenorrhea,⁶ has mimicked a retained intrauterine device,⁷ and may also involve the cervix.⁸ It has been successfully treated with hysteroscopic resection.^{2,6}

References

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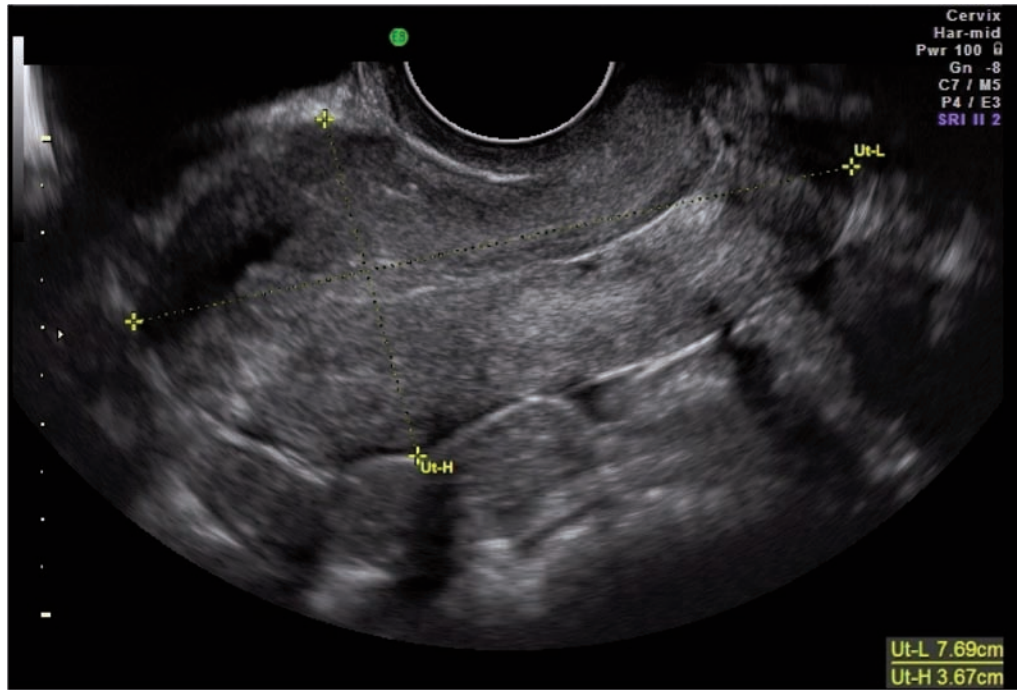


Figure 1. Two-dimensional sagittal view of the uterus.

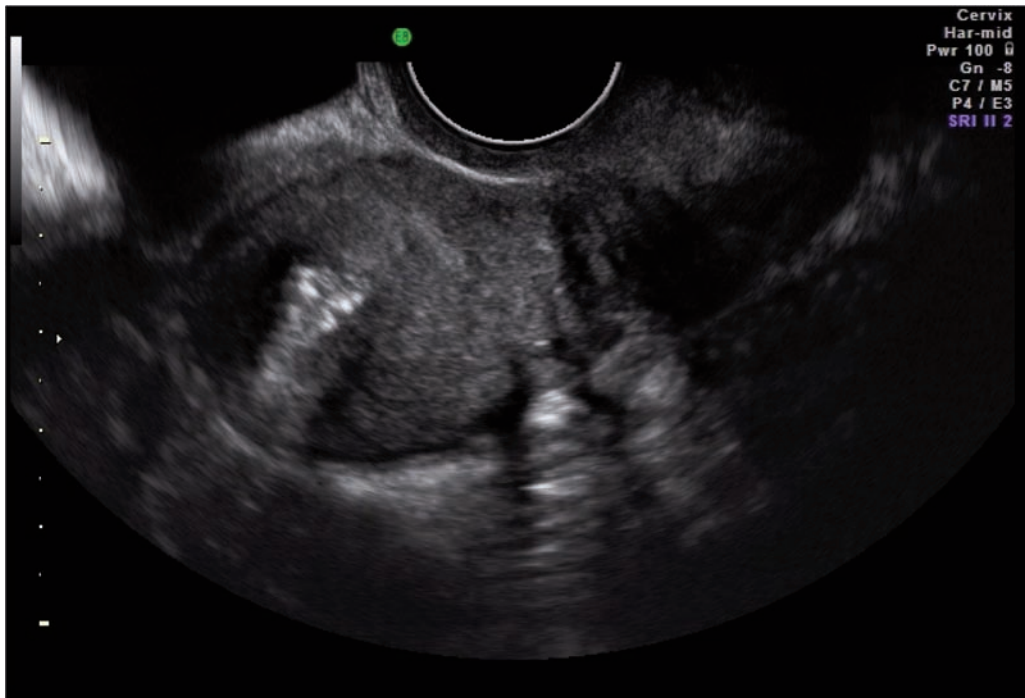


Figure 2. Two-dimensional right parasagittal view of the uterus.

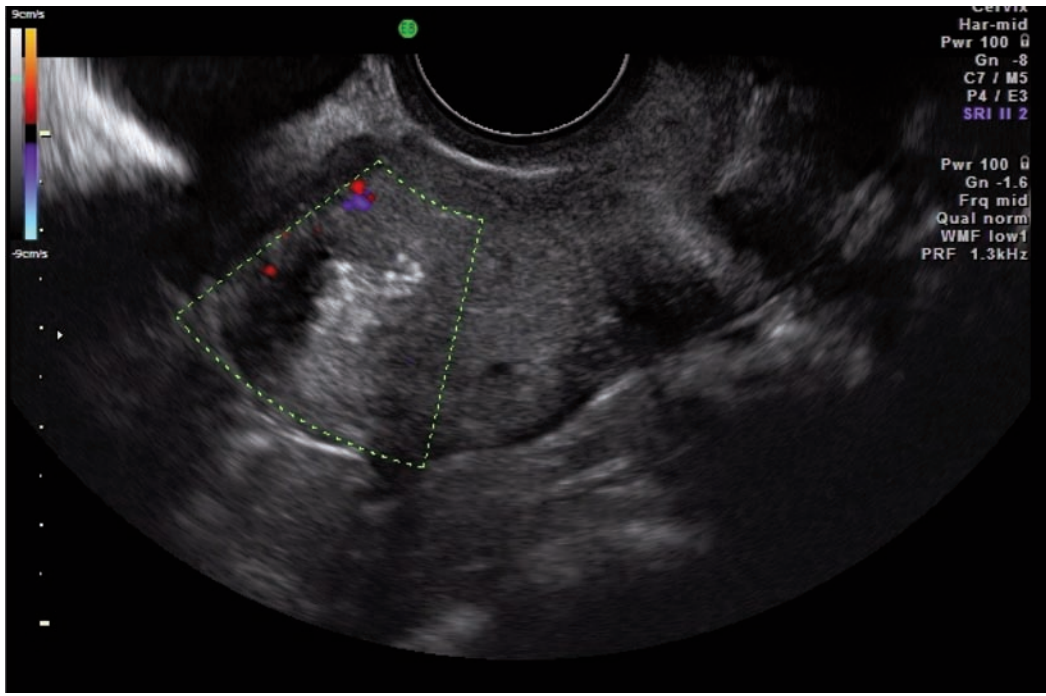


Figure 3. Two-dimensional parasagittal view of the uterus with color flow.

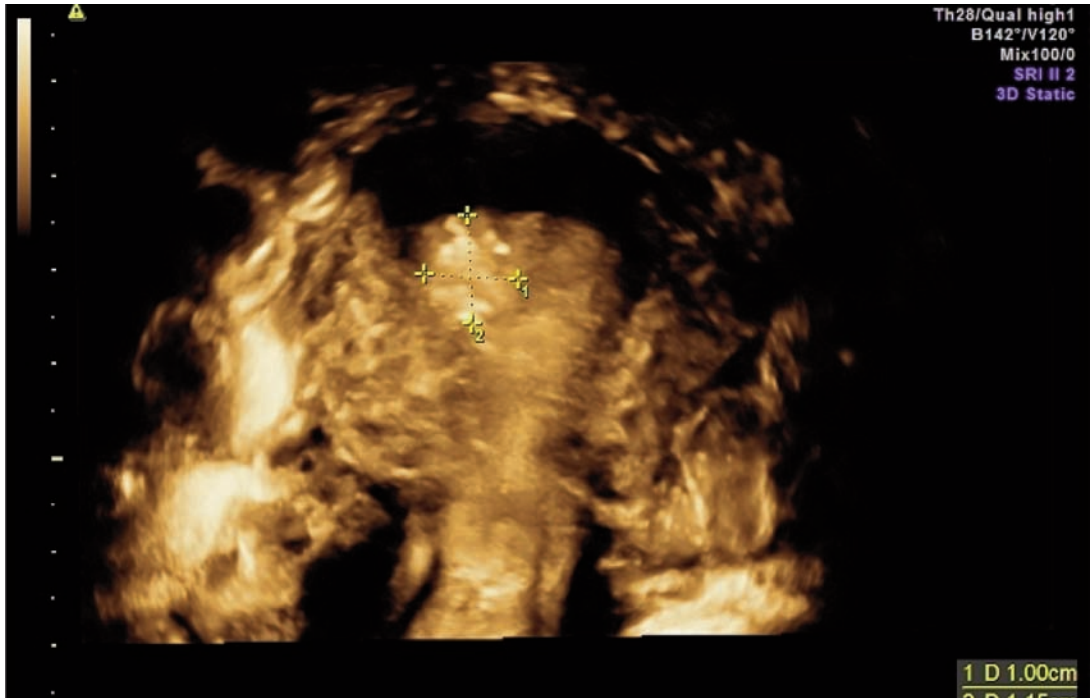


Figure 4. Three-dimensional coronal reconstruction of the uterus showing a 1 x 1.15-cm mass effect in the right cornual region.

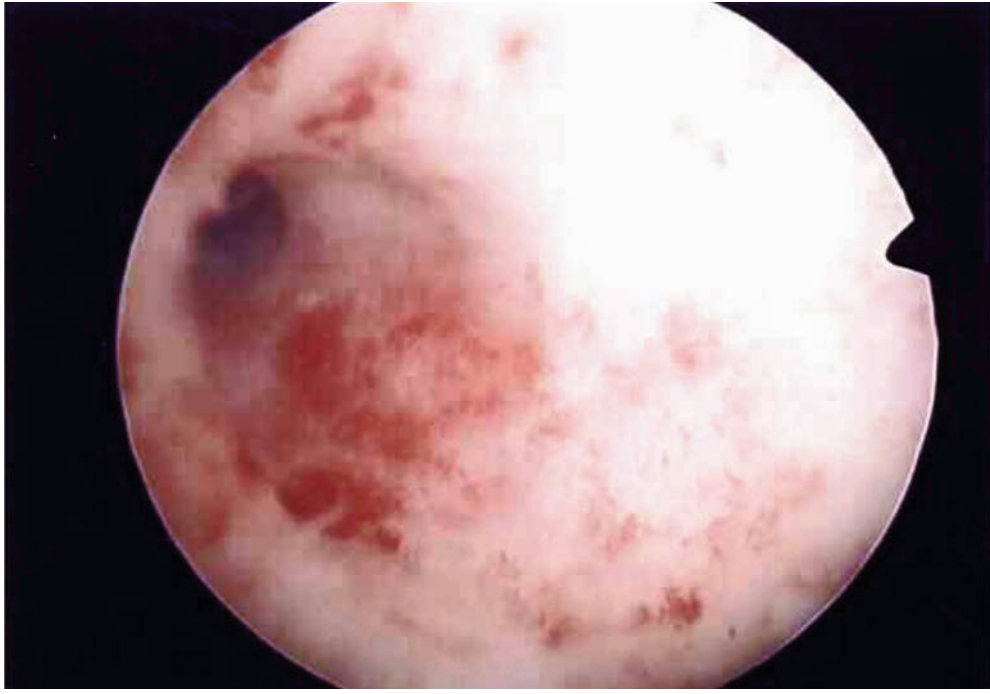


Figure 5. A hysteroscopic view of the right cornual region was unremarkable.