

Cornual 'ectopic' in a sub-septate type bicornuate uterus

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Introduction

Interstitial pregnancy occurs in 2–4% of ectopic pregnancies and is defined as implantation of the trophoblast in the interstitial part of the tuba uterina.¹ The distinction must be made between an ectopic pregnancy in the interstitial portion of the tube or a rudimentary uterine horn, and a pregnancy implanted in the horn (cornu) of a bicornuate uterus or cornual pregnancy.

In the absence of previous documentation of a bicornuate uterus, the ultrasonic distinction between a true cornual ectopic or interstitial pregnancy and a cornual pregnancy in the horn of a bicornuate uterus is difficult, as they share similar sonographic features.² The distinction is clinically important as management of these two conditions is very different. Interstitial pregnancy is described as typically rupturing in the second trimester with catastrophic often life threatening haemorrhage. This paper describes a case in which the ultrasound examination was indistinguishable from a cornual ectopic but the pregnancy was shown at laparoscopy to be in the horn of a bicornuate uterus.

Case report

A 34-year-old presented with a history of irregular periods and vaginal bleeding.

Clinical examination revealed a well patient with a non-surgical abdomen and a positive pregnancy test. Ultrasound suggested a gestational sac with a fetal pole and no cardiac activity located in the cornu. The myometrial mantle was thinned out. There was no free fluid in the Pouch of Douglas. There was a provisional diagnosis of an unruptured non-viable cornual ectopic (Figure 1a, 1b). The 'interstitial line sign' was not identified prospectively.

Laparoscopy was therefore performed and this demonstrated a bicornuate uterus with normal tubes and ovaries. Medical termination with misoprostol was carried out. Subsequent management involved serial beta HCG measurement. A repeat ultrasound after 4 weeks revealed a sub-septate type bicornuate uterus (Figure 2a, 2b over page).

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Discussion

Sonographic features of a cornual ectopic have evolved *pari passu* with experience and technical improvement in equipment. Eccentric location of the gestational sac was the first reported sonographic feature.² Later thinning of the myometrial mantle and the presence of myometrium between the sac and uterine cavity were added.³

With the advent of transvaginal sonography criteria for diagnosis included an empty uterine cavity, a sac located and seen separately > 1 cm from the lateral most edge of the uterine cavity and a thin myometrial mantle (< 5 mm) surrounding the sac.⁴ The 'interstitial line sign' was later reported to have a high sensitivity and specificity.⁵ The sign is an echogenic line that extends into the cornual region and abuts the mid-portion of the sac. In an early cornual ectopic it may represent the interstitial portion of the fallopian tube

Figure 1a

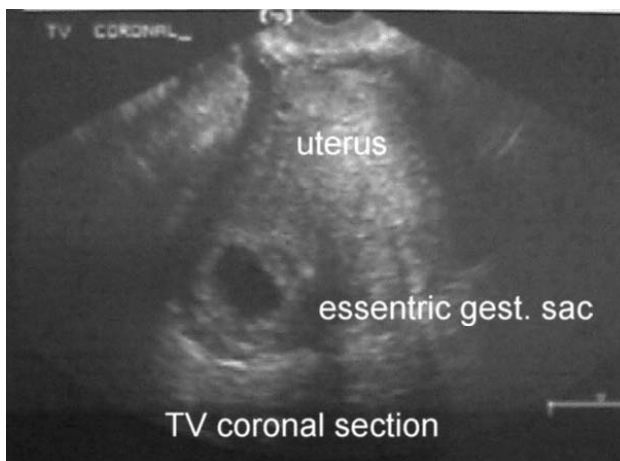


Figure 1b

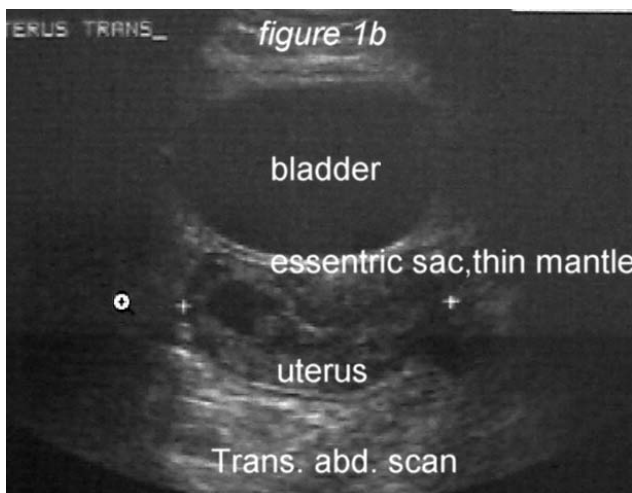


Figure 2a

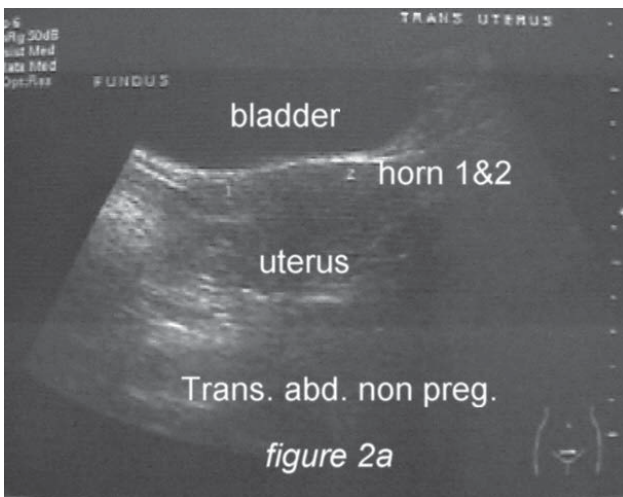
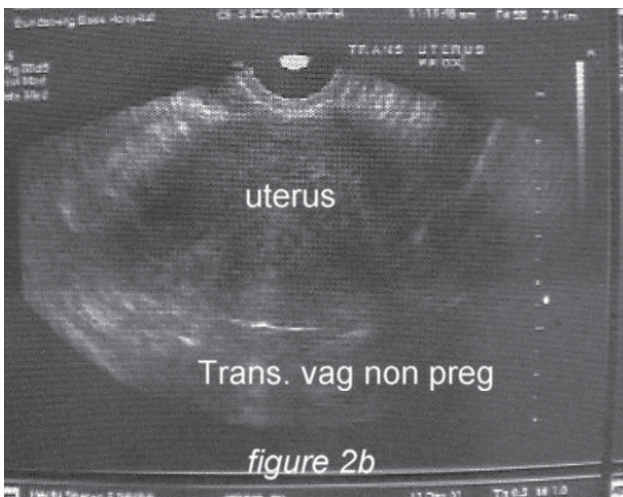


Figure 2b



and in larger cornual ectopics the line is thought represents the endometrial canal.

More recently, magnetic resonance imaging has been proposed as a diagnostic modality in equivocal cases⁶ as well as for follow-up after methotrexate treatment.¹

When the diagnosis is in doubt laparoscopy offers a diagnostic option. It is particularly useful if there is an uterine anomaly, as was evident in this case. The above case demonstrates that ultrasound features of cornual ectopics are similar to a cornual pregnancy can be found in the horn of a bicornuate uterus. With increasing adoption of ultrasound in the emergency department setting undertaken by physicians without imaging specialist input, the potential for misdiagnosis of interstitial ectopic pregnancy has been identified.⁷

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