

Sonographic Identification of an Unusual Complication of Midtrimester Pregnancy Termination: Unrecognized Intra-Abdominal Extrusion of Fetal Parts

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The incidence of uterine perforation during midtrimester dilatation and evacuation is 0.2% to 0.4%.¹⁻³ We describe an unusual secondary complication of uterine perforation, that of unrecognized extrusion of fetal parts with "migration" to an extrapelvic portion of the maternal peritoneal cavity. The key role of ultrasound in detecting this clinically unsuspected complication is discussed.

CASE REPORT

A 25-year-old woman (G3P2) underwent an uneventful elective pregnancy termination of a 16-week gestation by dilatation and evacuation (D&E) under general anesthesia. Two days later she was admitted with left lower quadrant pain, fever, and a hematocrit of 29.1. A curette was passed to 13 cm, eliciting back pain but yielding no tissue. Laparoscopy revealed considerable intra-abdominal blood, and immediate laparotomy confirmed a 10-cm posterior uterine tear. Following uterine repair, the remainder of the pelvis and accessible abdominal contents were thoroughly inspected and considered normal.

Despite antibiotic coverage, a postoperative fever persisted on postoperative day 6, and the left lower quadrant pain was increasing. Pelvic examination was unrevealing and pelvic sonography was requested. While no pelvic abnormal-

ity was seen, incidental scanning over a focal tender region that the patient noted in the left upper quadrant revealed a 3.5-cm oval echogenic structure with internal architecture resembling a portion of the fetal calvarium (Fig. 1). Subsequent radiography confirmed a faintly calcified portion of fetal calvarium (Fig. 2), which at reexploration was noted to be a macerated fetal head walled off within matted omentum. The patient recovered uneventfully and was discharged nine days later.

DISCUSSION

The morbidity and mortality associated with elective pregnancy termination increases with advancing gestational age.^{1,3-6} D&E is an accepted and common method of midtrimester pregnancy termination, outnumbering instillation methods by 2:1 in the United States in 1981.^{1-4,7-9} Evaluation of morbidity and mortality data has shown D&E to be safer than instillation methods from 13-15 weeks, and of comparable safety from 16-20 weeks.^{7,8}

Major complications of D&E include cervical injury, hemorrhage requiring transfusion, infection, retained products of conception, and uterine perforation.^{2-5,9} The incidence of uterine perforation during D&E is 0.2% to 0.4%¹⁻³ with reported maternal complications including bowel perforation or extraction, ureteral and bladder trauma, peritonitis, hemorrhagic shock secondary to major vessel trauma, entero-uterine and vesico-uterine fistulae, intraperitoneal loss of aborting instrument, withdrawal of Fallopian tube, and death.¹⁰ Sonography has been useful in detecting complications of first trimester terminations, including incarcerated intrauterine

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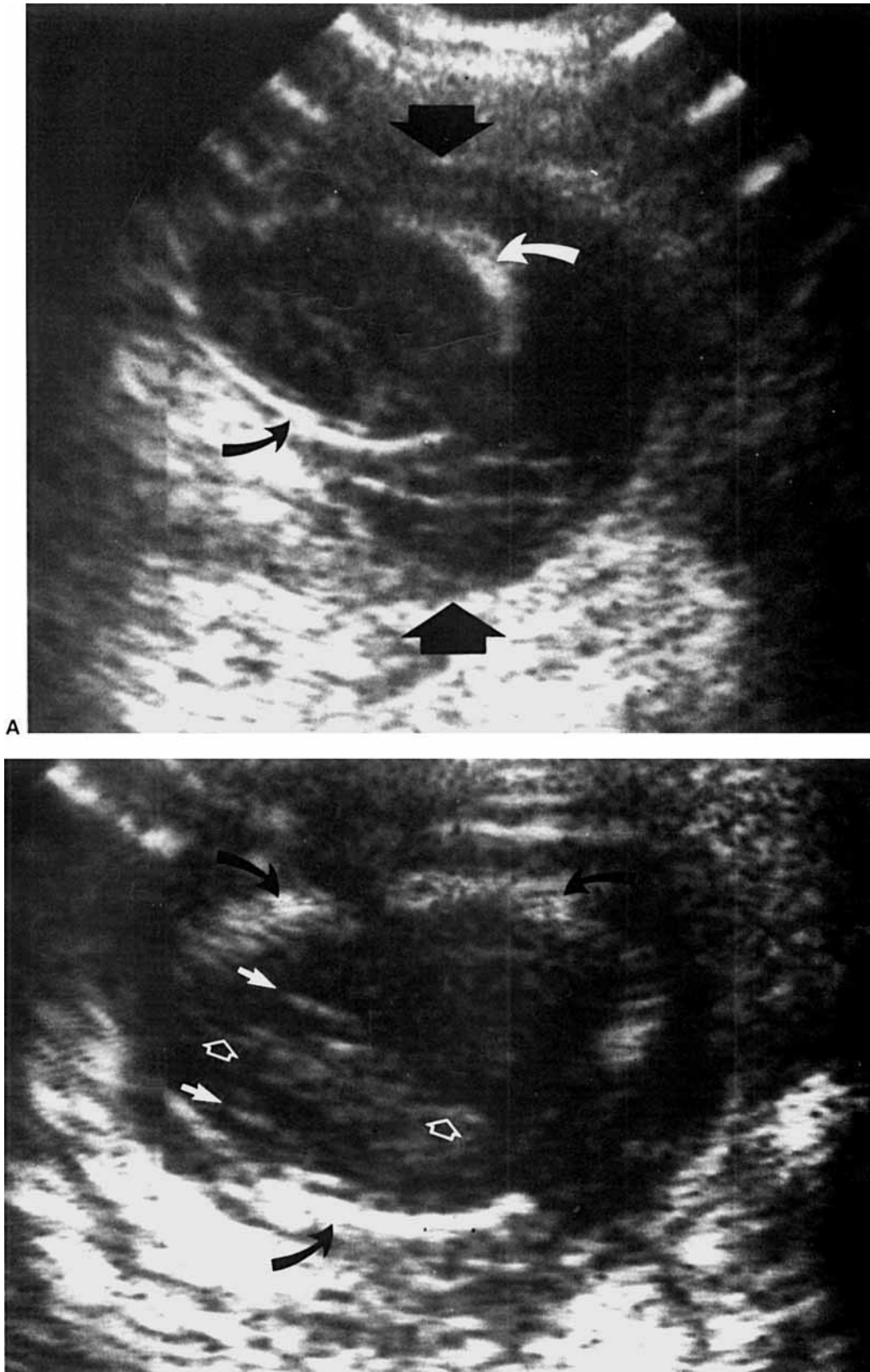


FIGURE 1. (A) Scan within left upper quadrant shows a primarily hypoechoic mass (curved arrows) with internal septa and an ovoid echogenic structure resembling a fetal calvarium (large arrows). (B) Further scanning of the distorted calvarium (curved arrows) reveals internal echos derived from the falx/interhemispheric fissure (open arrows) and wall of the frontal horns (closed arrows), confirming the diagnosis of extruded fetal parts.

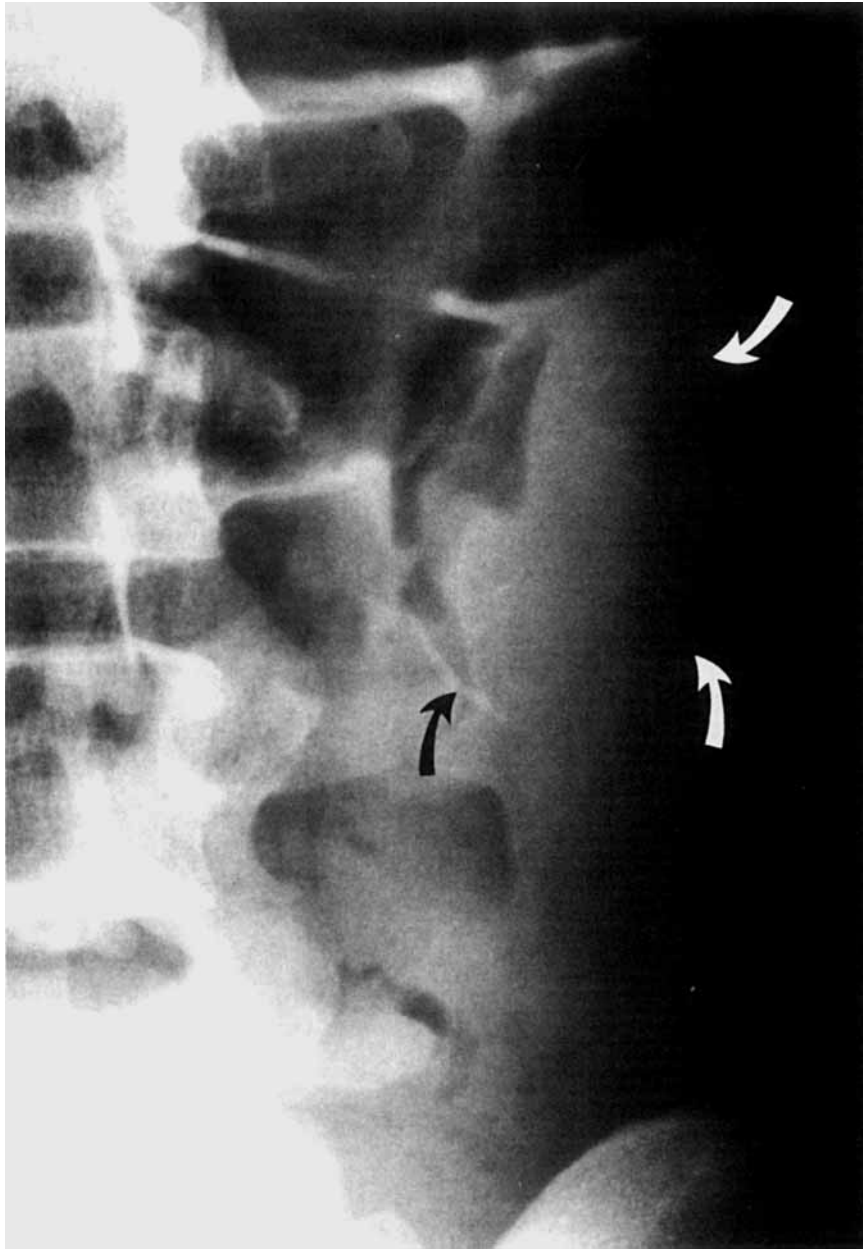


FIGURE 2. Coned-down radiograph of left upper quadrant. The faint calcified rim of the fetal calvarium is apparent (curved arrows).

small bowel following perforation,^{11,12} the identification of an instrument-induced false lumen within the myometrium,¹³ and documentation of a pelvic abscess, possibly containing fetal parts, secondary to perforation.¹⁴ The role of sonography was central in our case, where not only was there unsuspected extrusion of fetal parts, but these parts had migrated distantly from the uterus, obscuring this complication of perforation as the cause for the patient's continued symptomatology. While thorough exploration at laparotomy for uterine repair failed to detect the retained parts, sonographic examination directed

to the left upper quadrant by the patient's complaints of tenderness in this location readily identified the retained fetal calvarium due to its marked echogenicity compared to the surrounding tissues and the characteristic appearance of the remaining intracerebral structures.

This case also highlights the importance of tailoring the sonographic examination to the clinical circumstances. Limiting the examination to the pelvis, inasmuch as a "pelvic ultrasound" examination has been requested, would not have identified the extruded fetal parts. Since important clinical information is frequently omitted

from examination request forms, brief questioning of the patient may reveal pertinent history and physical findings that influence the conduct of the ultrasound examination. In this instance, sonography directed to the point of maximal tenderness in the left upper quadrant established the diagnosis.

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