Floating fetus: a rare complication of balloon tamponade treatment of caesarean scar ectopic pregnancy

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DESCRIPTION

A 31-year-old pregnant patient presented with complaints of persistent sharp and colicky, suprapubic and pelvic pain lasting 5 days. She was also experiencing intermittent vaginal bleeding. She was haemodynamically stable and afebrile on presentation. Her beta human chorionic gonadotropin was 17 280 mIU/mL on presentation. A pelvic ultrasound was promptly performed, which demonstrated a caesarean section scar in the anterior lower uterine segment from a prior pregnancy, with an adjacent irregularly shaped fluid collection (figure 1). The echogenicity surrounding this fluid collection was consistent with decidual reaction of a gestational sac, and the sac contained yolk sac and fetal pole without cardiac activity (figure 2). Based on the size of the gestational sac, the estimated gestational age was 6 weeks.

After counselling about treatment options for caesarean scar ectopic pregnancy, she declined methotrexate management and elected to proceed with Cook balloon placement. The Cook balloon is an intrauterine balloon which on inflation crushes the gestational sac. On postoperative day 1 from this procedure, the patient was noted to have severe abdominal pain. A bedside ultrasound demonstrated a 5 cm haematoma along the anterior portion of the uterus. This was concerning for uterine scar rupture. The patient, however, refused surgical management at this time. On the subsequent day her abdominal pain worsened and her haemoglobin dropped from 11.2 to 7.1 g/dL, raising concern for active bleeding.

CT scan of the abdomen and pelvis was performed to evaluate for complications of intrauterine balloon treatment, confirmation of the haematoma and suspected uterine scar rupture. On CT, a moderate-sized haematoma was seen adjacent to the anterior lower segment of the uterus (figure 3). Additionally, haemoperitoneum was seen within the pelvis, tracking along the paracolic gutters and the...
Liver. The gestational sac, which was now displaced into the peritoneal cavity containing a fetal pole measuring roughly 0.7 cm, corresponding to the ultrasound measurements, was demonstrated along the anterior abdominal wall (figure 4). These findings were consistent with dehiscence of the anterior lower segment uterine scar status post-balloon dilation with intraperitoneal expulsion of the gestational sac. At this time the patient underwent surgery, which confirmed rupture at the hysterotomy scar and dissection down the round ligament. Evacuation of the haematoma, hysterotomy repair and removal of the gestational sac were performed. The patient made a prompt recovery and was shortly discharged thereafter.

Caesarean scar ectopic pregnancy is relatively rare, being detected in 1/2000–1/8000 pregnancies.1 Although it is intrauterine, the morbidity and mortality associated with caesarean scar ectopic pregnancy are very high, with increased incidence of uterine rupture.2 Caesarean scar ectopic pregnancy is managed surgically or medically by injecting methotrexate. A new minimally invasive procedure has been described using an inflated balloon to produce tamponade of the gestational sac.3 In the above case, the procedure resulted in caesarean scar rupture and expulsion of the gestational sac into the peritoneal cavity. To the best of our knowledge, this complication has not been described in the literature, since this is a relatively new procedure. Although ultrasound is the primary modality for evaluation of ectopic pregnancy, these images demonstrate the utility of CT in evaluating extrauterine structures and the extent of haemorrhage when uterine rupture is suspected.

Learning points

► Caesarean scar ectopic pregnancy is a rare occurrence which should be considered in nulliparous women with a history of caesarean section.
► Intrauterine balloon tamponade treatment of caesarean scar ectopic pregnancy can cause uterine rupture/dehiscence.
► CT with intravenous contrast will help in evaluating extrauterine structures and the extent of haemorrhage when uterine rupture is suspected.

Contributors JMA and RT prepared the primary manuscript, which was revised by CRT.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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