

## **An unusual cause for concealed hemorrhagic shock in the second trimester of pregnancy resulting in fetal demise**

Sir,

A 29-year-old parturient with 25 weeks of gestation (gravida 4, para 1, live 1, and abortion 2), booked elsewhere, presented with sudden onset of severe abdominal pain radiating to the back for 30 min. There was no history of draining/bleeding per vaginum (PV) or trauma. She was able to perceive fetal movements. She was drowsy, pale with feeble peripheral pulses, unrecordable blood pressure, the uterine size of 30 weeks with mild tenderness and fetal bradycardia. On pervaginal examination there was no bleeding, cervix was high, uneffaced and os closed. She was initially resuscitated with crystalloids and colloids, with that her hemodynamics showed improvement. Initial screening ultrasonography revealed fetal bradycardia and anteriorly placed placenta. There was no retroplacental echogenicity or free fluid in the abdomen and ovaries were normal. These findings led us to think nonhemorrhagic causes for circulatory shock.

Continuing the resuscitation, a detailed repeat ultrasonography, by radiologist revealed a heterogenous hyperechoic lesion measuring approximately 6 cm × 6 cm within the lower uterine wall, suggestive of hematoma with no demonstrable vascularity. Yet the degree of shock was disproportionate to that attributable to the hematoma alone. In spite of ongoing resuscitation and initial improvement in maternal hemodynamics, there was fetal demise.

Within an hour, her hemodynamics started deteriorating and considering the concealed hematoma and fetal demise she was taken up for emergency hysterotomy. With continued resuscitation hysterotomy was done under general anesthesia

with rapid sequence induction and controlled ventilation. Intraoperatively, the uterus was uniformly enlarged to 32 weeks size with engorged, dilated vessels on the surface. A vertical incision was made on the uterus about 2 L of blood clots, a dead fetus with intact amniotic sac, and clear liquor were removed. After the uterine contraction, torsion of the uterus was noted. The uterine incision was actually made on the posterior surface. The uterus was closed and derotated. Considering her compromised hemodynamics, she was electively ventilated and extubated after 12 h. She recovered well and on regular follow-up.

The hemorrhagic shock during pregnancy could be traumatic/nontraumatic and obstetric/nonobstetric. The common causes for obstetric hemorrhage such as abruptio placenta, uterine rupture, ovarian torsion presents with sudden severe abdominal pain, shock and fetal bradycardia/demise. The absence of bleeding PV and retroplacental hematoma, intact uterine contour, normal ovaries, and no free fluid in the abdomen excluded the above conditions, respectively. The only finding which could have clinched the diagnosis was posteriorly placed the placenta in the ultrasonography done at 20 weeks of gestation in contrast to the current anterior position. We initially misinterpreted it as an ultrasonography reporting error.

Uterine torsion is a rare cause for concealed obstetric hemorrhagic shock resulting in fetal demise. It usually presents in the third trimester.<sup>[1]</sup> It can be asymptomatic<sup>[2]</sup> or symptomatic causing the maternal/fetal demise.<sup>[3]</sup>

In a patient with concealed hemorrhagic shock alteration in the placental position between anterior and posterior by ultrasonography, should clinch the diagnosis of uterine torsion early, to save the mother, and fetus. We recommend uterine torsion should be considered as one of the differential diagnosis while evaluating concealed obstetric hemorrhagic shock.

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### Conflicts of interest

There are no conflicts of interest.

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