

INTRODUCTION

Abdominal pregnancy is a rare form of ectopic pregnancy with reported incidence of 1 in 10,000 live birth. Maternal mortality resulting from uncontrolled hemorrhage during surgical evacuation was reported as high as 20 %. The challenge in managing an abdominal pregnancy begins with recognizing the extra uterine location of the pregnancy during ultrasonography and continues with dilemma of placenta management during the surgical evacuation.

CASE REPORT

We present a case of 39 years old, Orang Asli, Gravida 6 Para 4 with two previous caesarean scar, referred to our center for suspicion of placenta accreta spectrum at 35 weeks of gestation. She had an uneventful antenatal follow up in local health clinic since ten weeks period of gestation. Upon assessment at 35 weeks ultrasound findings (*Video 1*) revealed a small non-gravid uterus measuring 12cm x 8cm x 4cm with endometrial thickness of 10 mm. Extrauterine gestational sac seen with viable fetus corresponding to gestational age with estimated weight of 2200g. Fetal liquor and dopplers were normal. There was no myometrial tissue seen in between the gestational sac and maternal bladder. The placental mass appears to be attached to the right posterolateral uterine wall and was not in continuity with abdominal wall anteriorly and liver superiorly. Right adnexal vessel plexus appears tortuous with turbulent flow within.

Magnetic resonance imaging was arranged to evaluate site of placental attachment, particularly the underlying vessels and organ to facilitate surgical planning. Discussion made with interventional radiologist regarding identification and occlusion of the major feeding vessels.

Exploratory laparotomy was performed. Intraoperatively, uterus, bilateral fallopian tubes and left ovary appears normal. Right ovary not visualized. Gestational sac with viable fetus arising from the right adnexal complex with placental attachment seen likely to right mesosalpinx. A healthy newborn weighing 2200g delivered with good Apgar score. Right infundibulopelvic ligament was clamped, cut and ligated. Placenta was removed completely. Laparotomy completed without maternal morbidity. Histopathological examination reported placental implantation site is at the mesosalpinx / broad ligament and no ovarian tissue was identified.

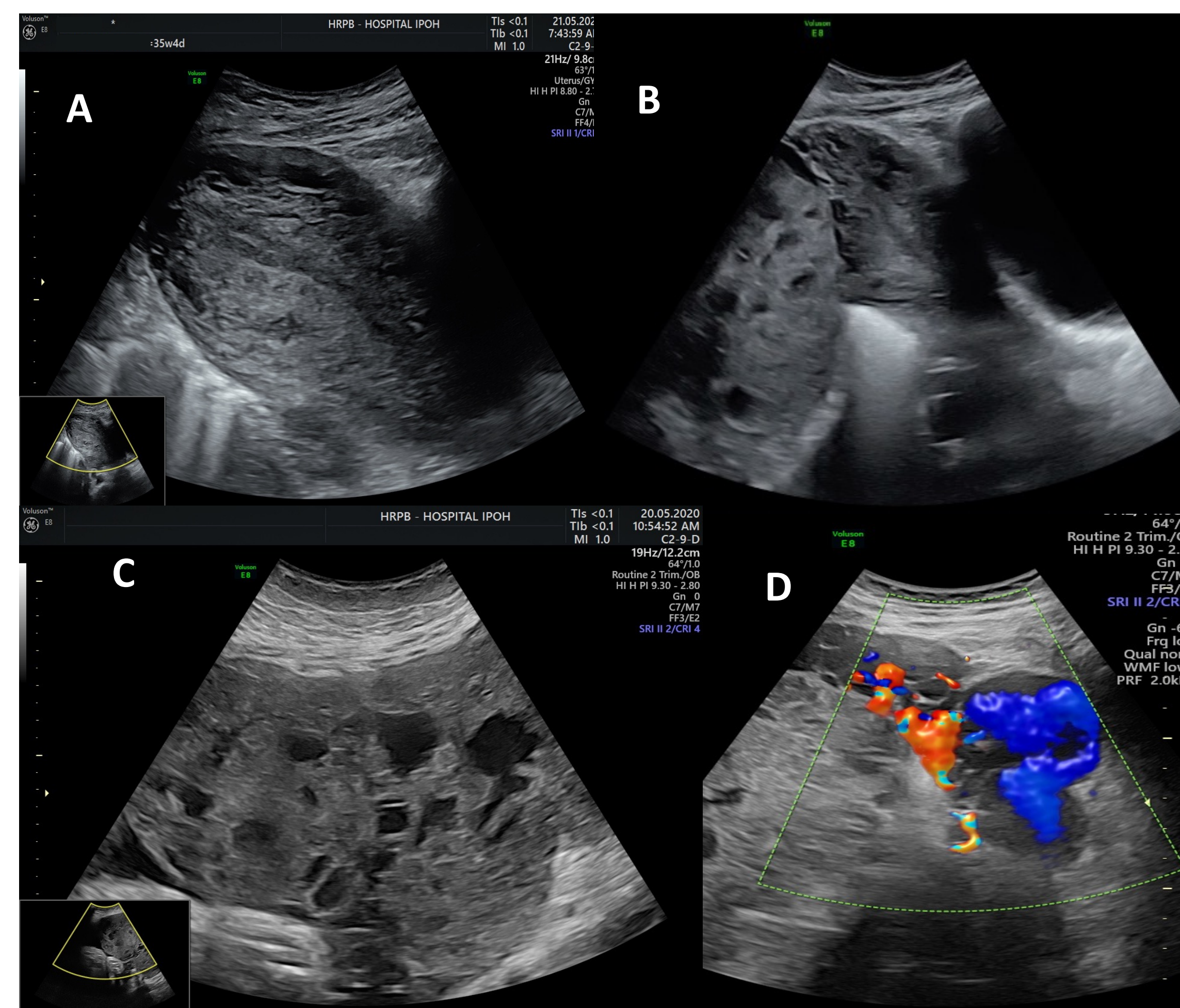


Figure 1: Ultrasound images (A) Empty uterus; (B) Placental attachment to right posterolateral uterine wall; (C) Loss of intervening myometrium between placenta and anterior abdominal wall; (D) Adnexal vessel plexus with doppler enhancement

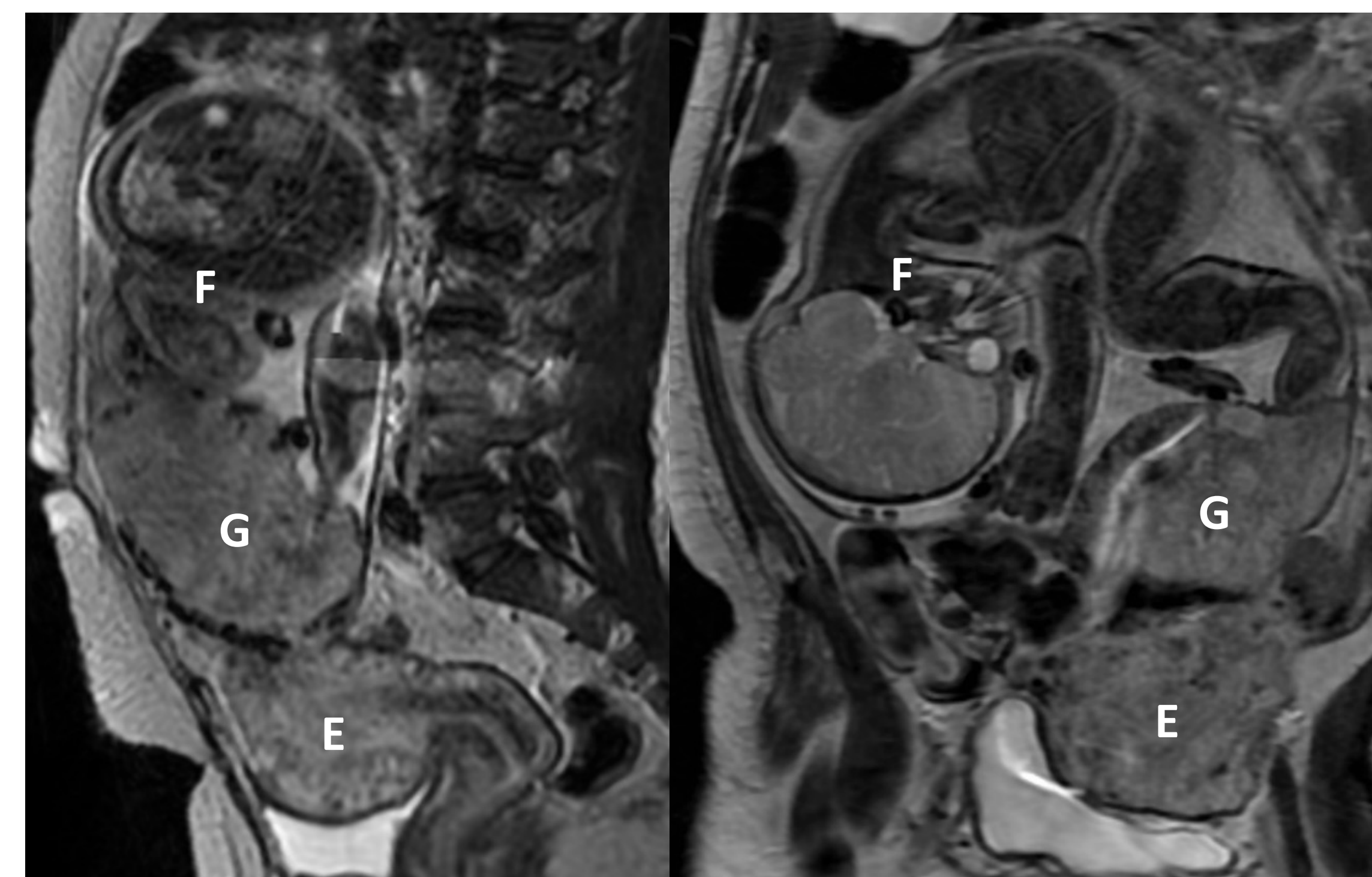


Figure 2: MRI Image. Left Sagittal view, Right Coronal View; (E) Uterus; (F) Fetus; (G) Placenta

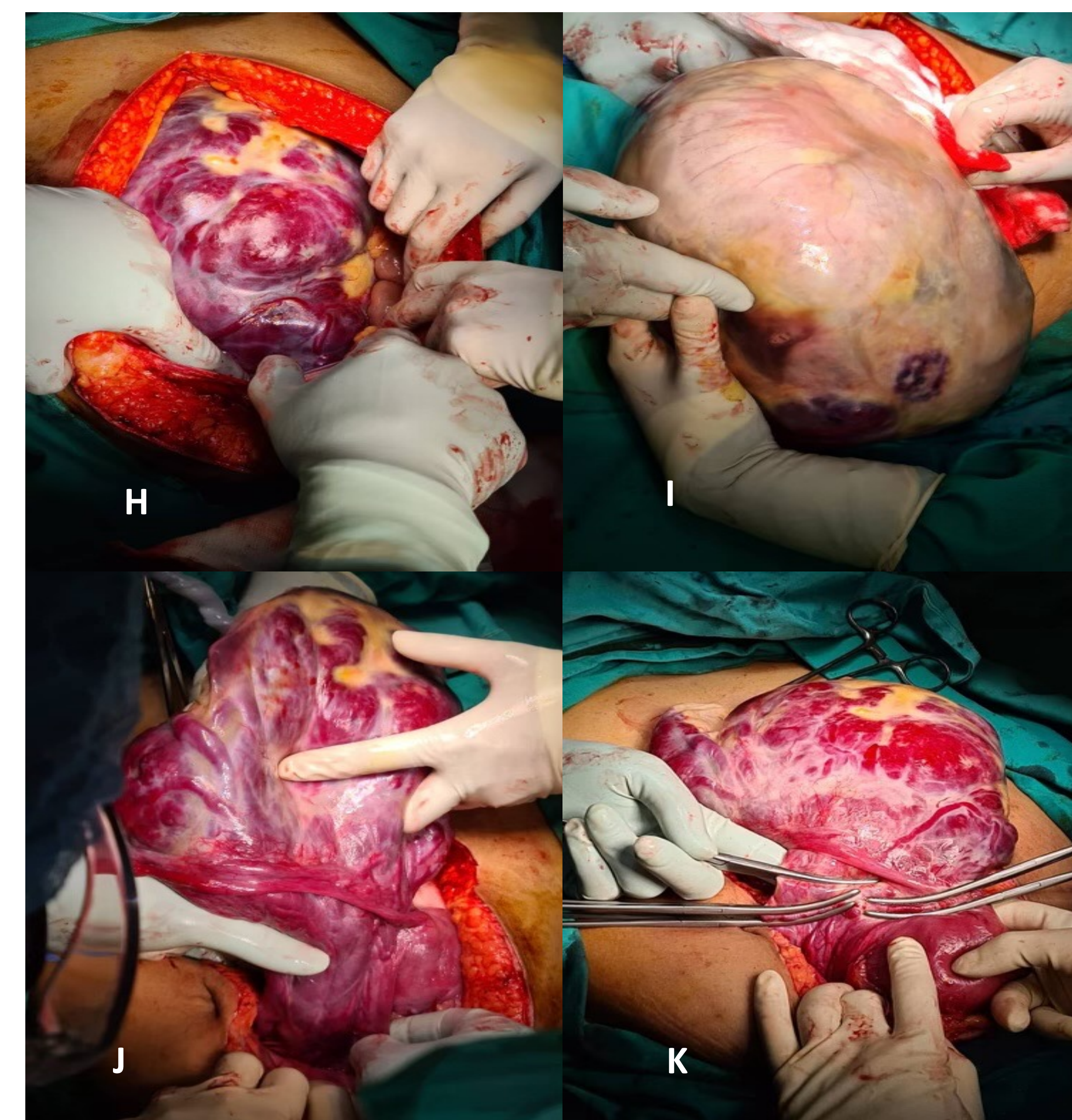


Figure 3 *: (H) Image of exploratory laparotomy; (I) Gestational sac with viable fetus; (J & K) Placenta attachment to mesosalpinx with normal uterus

DISCUSSION

An abdominal pregnancy is defined by implantation of the product of conception (gestational sac, fetus, and placenta) within the peritoneal cavity but external to the fallopian tubes and myometrium. Potential sites include omentum, pelvic side wall, broad ligament, posterior cul-de-sac, uterine serosa, non-uterine abdominal organs (spleen, bowel, liver), large pelvic vessels and diaphragm. The diagnosis is suspected based on sonographic or surgical visualization of the abdominal location of the pregnancy and confirmed with histopathological examination.

Despite advancement in ultrasound technology, this variant of ectopic pregnancy are still being missed. An advanced abdominal pregnancy may be misinterpreted as intrauterine if the ultra-sonographer does not evaluate the relationship between the pregnancy and myometrium during the examination.

The extrauterine location may not be readily visualized, thus sonographic features that should raise suspicion of an abdominal pregnancy is empty small uterus (often missed), , absence of myometrial tissue between the pregnancy and maternal bladder, poor definition of placenta, membranes not visible at internal cervical os (via TVS) and in advanced gestations, the fetus maybe in unusual lie with oligohydramnios.

Magnetic resonance imaging can be useful in confirming diagnosis if there is uncertainty but more importantly for surgical planning. It helps in determining placental attachment site particularly the underlying vessels and organ.

Interventional radiologist can be consulted regarding occlusion of the feeder vessels supplying the placenta circulation to minimize maternal hemorrhage.

Abdominal pregnancy even if advanced are surgically interrupted at diagnosis. Expectant management to gain fetal maturity has been attempted however this approach is not recommended because of high maternal and fetal morbidity from sudden maternal hemorrhage requiring emergency laparotomy in an unplanned environment.

Optimal strategy of managing the placenta at surgery is unclear. Individualized management is deemed appropriate. Removing the placenta at surgery may lead to life threatening maternal hemorrhage if site of implantation is on vital organs or large vessels as the normal myometrial mechanism that control placental site hemorrhage is absent. On the other hand leaving the placenta insitu may require close monitoring for infection and hemorrhage

CONCLUSION

The diagnosis and management of an advanced abdominal pregnancy still poses challenges to obstetricians, even in the era of increased access to advanced diagnostic imaging modalities. High index of suspicion and planned surgical intervention is essential to improve maternal and fetal outcome.

REFERENCE

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