Challenges in the diagnosis of Secondary Abdominal Pregnancy – Unusual presentation with Anhydramnios

S.C. Wong (Registrar in Obstetrics and Gynecology), G. Coleman (Ultrasound Clinical Specialist), A. Mahendru (Consultant in Feto-Maternal Medicine)

Nottingham University Hospital NHS Trust

Background

Abdominal pregnancy – rare form of ectopic pregnancy associated with higher maternal mortality rate than tubal pregnancies. There is no standard diagnostic technique and the clinical presentations are very varied and unusual leading to delay in diagnosis.
Amongst the various causes of secondary abdominal pregnancy, ruptured rudimentary horn pregnancy (RHP) in unicornuate uterus is very rare. This case highlights an unusual presentation of secondary abdominal pregnancy

Case Report

- 28 years old, Para 1 – previous caesarean section for footling breech.
- Severe abdominal pain at 15 weeks. Scan reported as normal findings (Figure 1)
- Anhydramnios at 19+5weeks gestation with normal fetal kidneys and bladder
- Previous Intraoperative notes at time of first caesarean section suggested evidence of bicornuate uterus , with pregnancy in the right horn
- Reported persistent lower abdominal pain throughout third trimester, fetal growth normal
- Ultrasound Scan showed possible tracking of fluid from the uterus
- Further Imaging: MRI at 30/40 (Figure 2) - didelphic uterus, with fetus in the left horn and possible tracking of fluid outside the uterus. This raised the suspicion of possible scar dehiscence. Differential diagnosis of rudimentary horn pregnancy.
- Planned caesarean section (elective delivery) at 32/40
- Intraoperatively: Abdominal pregnancy with intact unicornuate uterus with right fallopian tube and ovary. Live baby born with weight appropriate for 32 weeks. The baby went to neonatal unit due to prematurity and subsequently made good progress.
- Placental histology: Confirmed the presence of myometrium, salpinx and ovary in keeping with ruptured rudimentary horn pregnancy

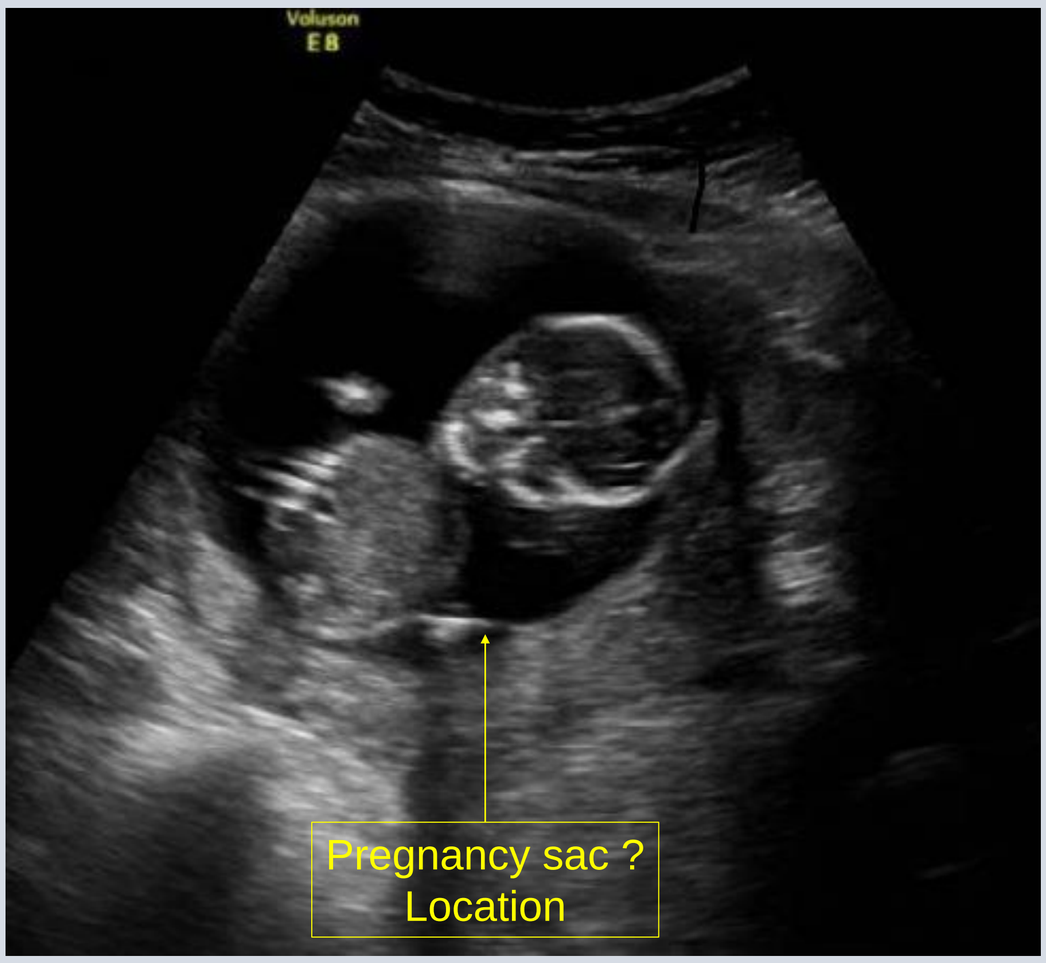

Figure 1: Scan at 15 weeks

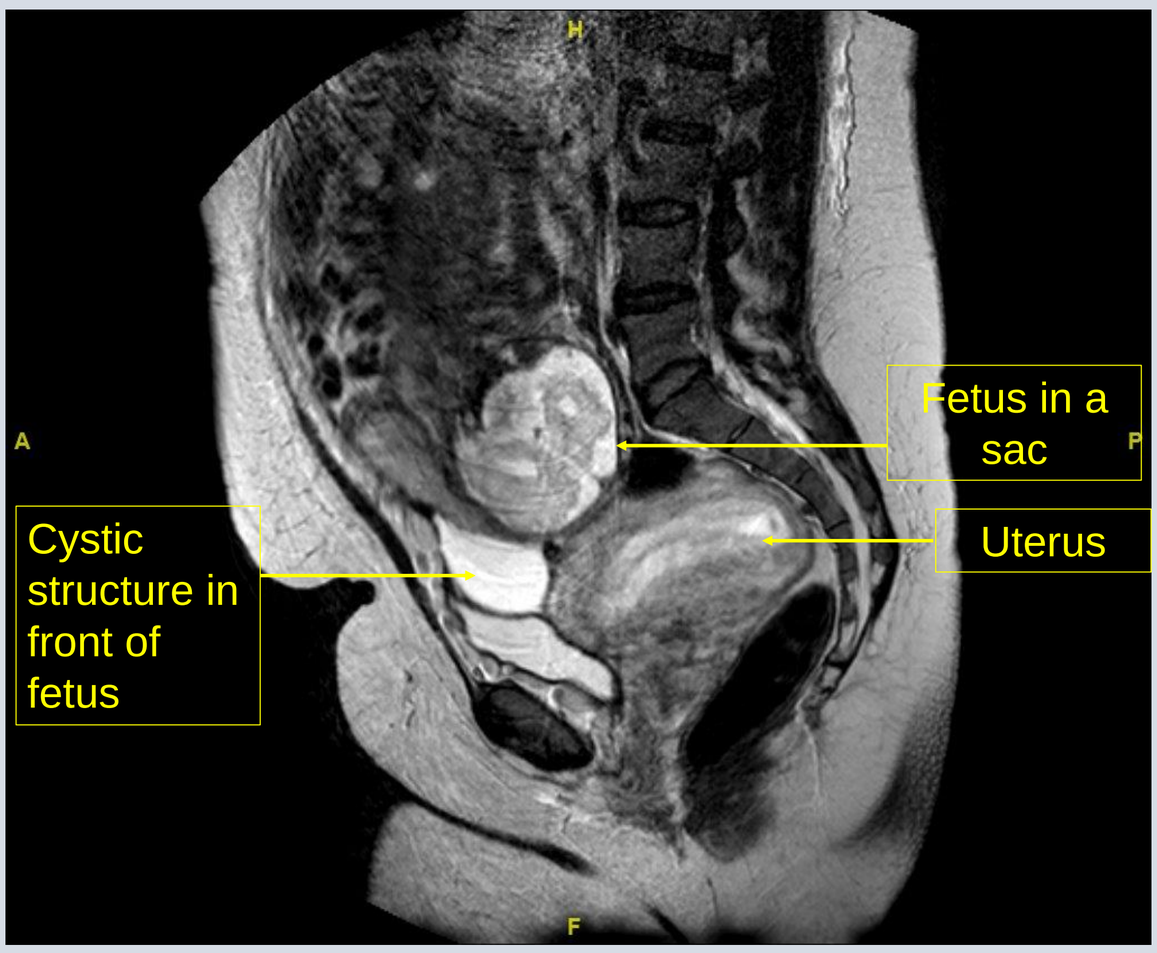

Figure 2 MRI at 30 weeks:

Discussion

- Sonographic diagnosis of pre-ruptured RHP is best assessed in early pregnancy, in order to differentiate this from tubal pregnancy or pregnancies in other congenital uterine anomalies (bicornuate, didelphic).
- Importance of demonstrating site of intrauterine pregnancy and identifying uterine anomalies
- As yet, there's no definitive criteria for diagnosis of RHP.
- MRI can be used to assist in the diagnosis but needs more experience in interpretation.
- If diagnosed then management more difficult as pregnancy advances.
- Options of termination of pregnancy, delivery by laparotomy with preparations for management of life threatening haemorrhage
- The sensitivity of ultrasound diagnosis has previously been estimated at 26% - likely a result of the rarity of these cases and lack of agreed diagnostic criteria.
- Counselling and management are challenging especially in event of a live extrauterine pregnancy.

Conclusion

- Overall clinical picture is paramount to the diagnosis. In spite of advancement in imaging, RHP is still missed.
- Even when diagnosis is made management of pregnancy in RHP can be challenging in advanced pregnancy, detection in the first trimester is important.

References:

Gnanasambanthan S, Uchil D. A rare case of an ectopic pregnancy in the rudimentary tube of a patient with an isolated unicornuate uterus. *BMJ Case Rep 2017*. doi: 10. 1136/bcr-2017-220825
Verma G et al. Pregnancy in a non-communicating rudimentary horn: diagnostic challenges and late sonographic diagnostic critieria. *Ultrasound in Obstetrics & Gynecology* 2017; 50 (Suppl. 1): 257-399
Sancehz-Ferrer ML, Prieto-Sanchez MT, Del Campo FS. *Taiwanese Journal of Obstetrics & Gynecology* 57 (2018) 110-114
Chan YY, et al.. Reproductive outcomes in women with congenital uterine anomalies: a systemic review. *Ultrasound Obstet Gynecol* 2011; 38: 371-382.
Tsafrir A et al. Rudimentary horn pregnancy: early sonographic diagnosis confirmed by Magnetic Resonance Imaging. *13th World Congress on Ultrasound in Obstetrics and Gynaecology.* OC 139