

A Case Series of Three Heterotopic pregnancies, a diagnosis on the rise

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Introduction:

Heterotopic pregnancies are defined as an intrauterine pregnancy occurring simultaneously with a pregnancy in an extra-uterine location¹. The incidence is 1 in 30,000 in spontaneous conception and as high as 1 in 100 in assisted reproductive techniques (ARTs)². Given the rise in ARTs and the shift to fertility sparing treatment for ectopic, such as salpingostomies, we expect to see a rise in cases. We present a series of three women who were managed as tubal heterotopic pregnancies by St Peter's Hospital Early Pregnancy Unit (EPU) in Surrey, UK.

Case A

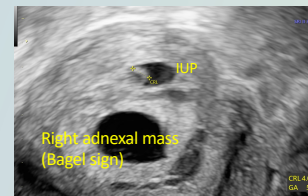
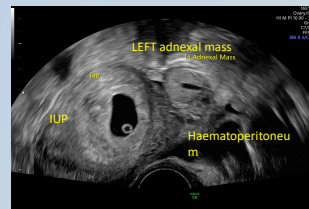
A 23 year old, gravida 4, para 1 presented to our emergency department (ED) with left sided abdominal pain at 6+4 weeks gestation. She had a history of left sided ectopic pregnancy, which was managed medically 2 years before. She had already had a scan in this pregnancy privately, which showed an intrauterine pregnancy. After presenting to the ED, she had a repeat scan and was diagnosed with concomitant ruptured left sided ectopic with evidence of haematoperitoneum. She was counselled on management options and consented for surgical treatment. She had an uncomplicated laparoscopy and left sided salpingectomy. She had 500mls of haematoperitoneum and a bleeding left fimbrial end was noted. Histology confirmed a tubal ectopic, and therefore heterotopic pregnancy.

References

- ¹ Elson CJ, Salim R, Potdar N, Chetty M, Ross JA, Kirk EJ on behalf of the Royal College of Obstetricians and Gynaecologists. Diagnosis and management of ectopic pregnancy. BJOG 2016; 123:e15–e5
- ² Hassani KI, Bouazzaoui AE, Khatouf M, Mazaz K. Heterotopic pregnancy: A diagnosis we should suspect more often. J Emerg Trauma Shock. 2010 Jul;3(3):304. doi: 10.4103/0974-2700.66563. PMID: 20930992; PMCID: PMC2938513.
- ³ Wang, Xinyan & Huang, Lu & Yu, Yan & Xu, Sheng & Lai, Yucheng & Zeng, Wenjie. (2020). Risk factors and clinical characteristics of recurrent ectopic pregnancy: A case-control study: Risk factors for REP. Journal of Obstetrics and Gynaecology Research. 46. 10.1111/jog.14253.

Case B

Patient B was a 23 years old in her first pregnancy who presented to our EPU at 6+6 weeks gestation with vaginal spotting. She had no risk factors for an ectopic pregnancy. Her scan at 6+6 showed an intrauterine pregnancy (IUP) along with a 11 x 10 mm right ectopic. Repeat scan at 7+3 showed no change in the size. She was initially managed conservatively and a further scan at 8+4 showed that the ectopic had increased in size to 22x22x16mm: This scan also showed a failing IUP. Her case was discussed by the MDT and the patient was offered expectant management and surgery; Expectant management was thought appropriate option as there was minimal pain and minimal fluid in the pouch of Douglas. The patient opted for a salpingectomy and surgical management of miscarriage. Histology confirmed heterotopic pregnancy



Case C

Patient C, a 29 year old, presented to our EPU at 6+2 weeks gestation with spotting and abdominal pain. She had three embryos transferred abroad in Pakistan. Ultrasound showed DCDA twins and a right adnexal mass consistent with a right ectopic of 12x 10mm, with no free fluid. Her case was discussed in the MDT after a series of scans. She was offered surgical and conservative management. She had an uncomplicated salpingectomy. Scan at 12+4 weeks showed demise of one of the twins, however she went on to have an uncomplicated singleton pregnancy. Histology confirmed heterotopic pregnancy.

Discussion:

This case series highlights the need for MDT input on the diagnosis and management in rare cases like these. Especially because of the individuality of each case: Patient A's case highlights the need to have a low threshold to rescan woman even if there is a history of IUP on scan. There is a risk that the presence of an IUP can provide false reassurance to the sonographer, and any additional adnexal mass may be too small to visualise on scan. Patient A's case also raises the question: could her previous expectantly managed ectopic pregnancy be the cause of the heterotopic pregnancy? Could we be increasing the incidence of heterotopic pregnancies by managing more ectopic pregnancies conservatively or medically, rather than surgically with a salpingectomy? Furthermore, both the diagnosis and management of heterotopic pregnancy is more complex than an isolated ectopic pregnancy: The commonly used tool of monitoring serial serum bHCGs and progesterone becomes invalid, and those opting for expectant management will need multiple scans to monitor this. The risk of general anaesthesia in a viable pregnancy should also be considered and discussed with the patient; including an increased risk of miscarriage, premature birth and low birth weight. Moreover, this case series highlights the impact of managing ART patients who have received care abroad with practices not approved in the UK.

Conclusion

Heterotopic pregnancies are on the rise due to the increased use of ART, and possibly due to the fact that more ectopic pregnancies are being managed conservatively or medically. Diagnosis and management via the MDT is essential to early recognition and optimise management