

A case of heterotopic pregnancy after transfer of frozen embryo



Northern Care Alliance
NHS Group

Dr Amena Shelleh*, Dr Ritu Dalmia**

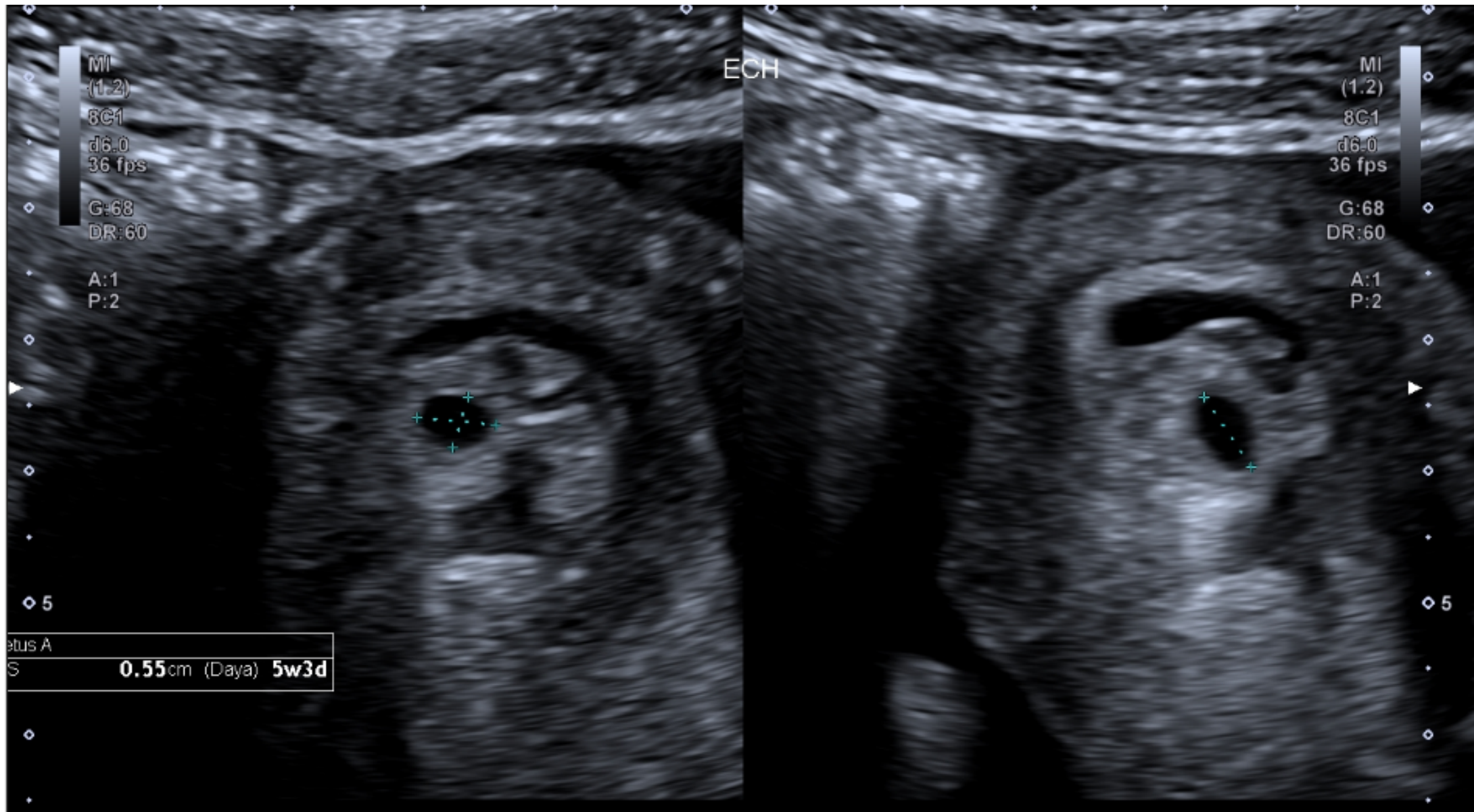
* Specialist Registrar North West Deanery, **Consultant Obstetrician & Gynaecologist The Royal Oldham Hospital

Objective: This case report highlights the challenges in diagnosing heterotopic pregnancy (HP) in a woman presenting with abdominal pain in pregnancy, despite a confirmed intrauterine pregnancy (IUP), following the transfer of two embryos during in vitro fertilization.

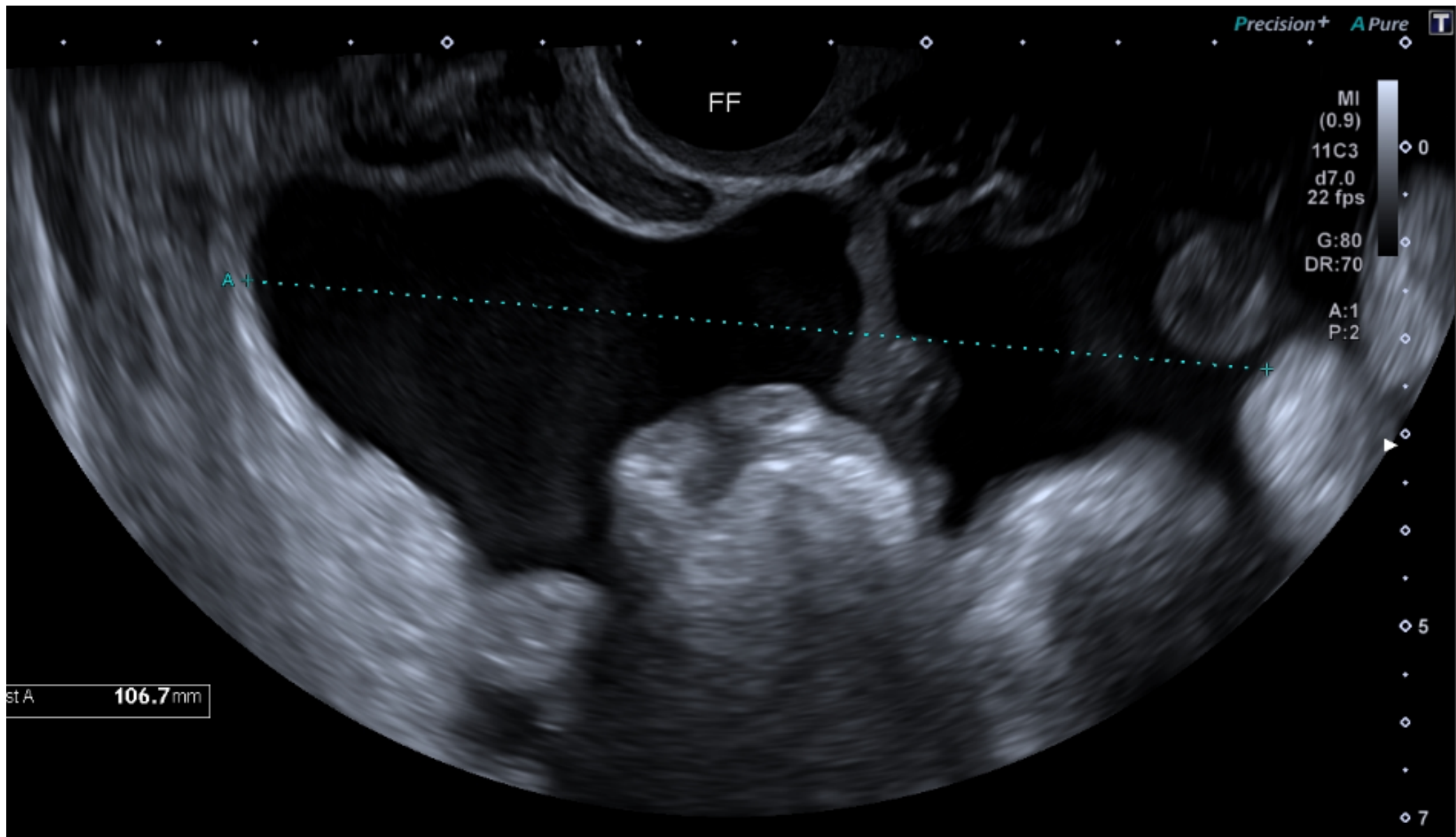
Case report: A 30 year-old woman with a history of in vitro fertilization in the current pregnancy, presented to the early pregnancy unit with very slight abdominal pain. A transvaginal ultrasound scan confirmed an intrauterine gestational sac measuring five weeks gestation with yolk sac within, and a large amount of pelvic free fluid. Both ovaries looked normal, however, the ultrasonographer was unable to visualise the fallopian tubes and suggested an MRI scan was performed.

The patient was haemodynamically stable. There was discussion about a possible diagnosis of ovarian hyperstimulation syndrome, however, it was soon realised that the patient had two frozen embryos transferred. The patient’s haemoglobin dropped from 102g/l to 90g/l over the course of six hours and it was decided to take her to theatre.

a) Ultrasound scan confirming an intrauterine gestational sac measuring five weeks gestation with yolk sac within



b) Ultrasound scan confirming a large amount of pelvic free fluid



The patient underwent a laparoscopic right salpingectomy the same day and a one litre blood loss was found within the pelvis. She had a scan a week later and was noted to have a live intrauterine pregnancy. The patient is currently twenty-nine weeks pregnant.

c) Intraoperative findings of tubal ectopic pregnancy



Discussion:

The incidence of heterotopic pregnancy was previously thought to be 1:30 000 in spontaneous pregnancies [1], however, the incidence is increased to around 1 in 100 in assisted reproduction [2]. Risk factors also include a history of previous ectopic pregnancy and pelvic inflammatory disease.

The management of HP involves a balance between preventing morbidity and mortality of the woman whilst considering the preservation of the viable intrauterine pregnancy by being as minimally invasive as possible. Diagnosis of HP is particularly challenging as β -hCG levels are less useful, considering the coexistence of an IUP and EP. Therefore, an early transvaginal ultrasound scan (TVUS) is required.

Conclusions: A high index of suspicion of HP is required in women who have had in vitro fertilisation, where more than one embryo has been transferred, and where there is a history of a tubal defect. The presence of an intrauterine pregnancy does not preclude the diagnosis of HP. If multiple embryos are replaced, HP should be excluded on an early TVUS.

References
1.De Voe, R., & Pratt, J. (1948) Simultaneous intra- and extra-uterine pregnancy. American Journal of Obstetrics and Gynecology, 56, 1119-25.
2.Hahn, L., Bachman, D., & McArdle, C. (1984). Co-existent intra-uterine and ectopic pregnancy: a re-evaluation. Radiology, 152, 151-4