Ulster Med J 2020;**89(2):**101-102

Clinical Paper

Abdominal ectopic pregnancy with implantation on the rectum

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Abstract – We report a patient who presented to our unit 26 days following in vitro fertilisation (IVF) and embryo transfer with vaginal staining, diarrhoea and mild crampy abdominal pain. On transvaginal ultrasound the uterus was empty with an extrauterine sac identified containing a yolk sac and a fetal pole with cardiac activity. Diagnostic laparoscopy was undertaken which confirmed an abdominal pregnancy with implantation on the rectum.

BACKGROUND

In this case presentation we discuss the presentation, diagnosis and management of an extremely rare condition. Ectopic pregnancies are relatively common, occurring in 1-2% of all pregnancies (1). The estimated incidence of abdominal pregnancy is 1 per 10000 live births (2.) In Northern Ireland one would expect approximately two cases of abdominal pregnancy each year. The mortality rate has been reported at 5:1000 (2) therefore it is important that clinicians are aware of and consider this rare condition. Proposed aetiology of abdominal pregnancies include implantation of an aborted tubal pregnancy, abdominal fertilisation and implantation and perforation of the uterus and direct implantation during embryo transfer (3,4).

The presentation of abdominal pregnancies can be variable depending on the location of implantation. Previous case reports have described ectopic implantation in the omentum (5), spleen (6) and liver (7). Other reported cases of rectal ectopic pregnancy have presented with anal pain (8) or rectal bleeding (9).

The Royal college of Obstetricians and Gynaecologists (10) have advised the use of the ultrasound criteria described by Gerli et al (11) when diagnosing an abdominal ectopic pregnancy. These include

1) Absence of an intrauterine gestational sac.

2) Absence of both an evident dilated tube and a complex adnexal mass.

3) A gestational cavity surrounded by loops of bowel and separated from them by peritoneum.

4) A wide mobility similar to fluctuation of the sac, particularly evident with pressure of the transvaginal probe toward the posterior cul- de-sac.

Regarding management, The Royal college of Obstetricians and Gynaecologists recommend that while advanced abdominal ectopic pregnancies should be managed by laparotomy, early gestations should be managed by laparoscopy (8). It is also recommended that methotrexate should be given as an adjunct to surgery.

Figure 1, Ultrasound image of abdominal pregnancy. The yolk sac and fetal pole can be seen clearly within the extrauterine gestational sac.

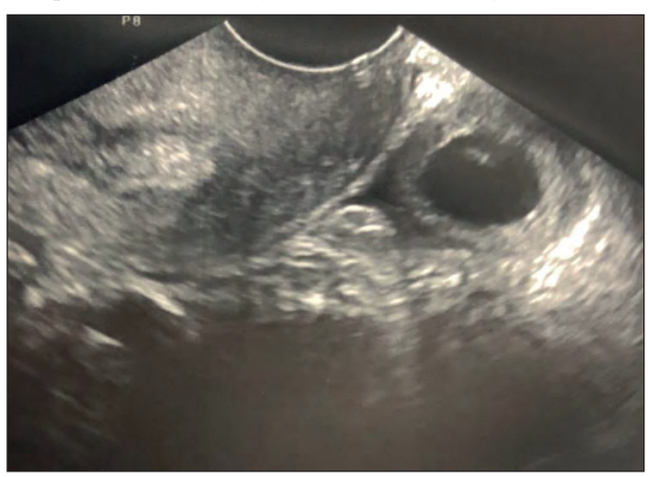

Figure 2, Ultrasound image of abdominal pregnancy between the uterus and rectum

CASE

This 30 year old lady underwent IVF due to primary infertility of unknown aetiology. Hysterosalpingogram had showed patent tubes with ovulation confirmed by a normal day 21 progesterone level. Semen analysis of her partner was normal. Ultrasound pelvis showed a fundal fibroid with no other abnormalities. Following referral to a regional fertility centre she underwent IVF and day 5 single embryo transfer. She presented to our unit 26 days following this with light

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vaginal staining, diarrhoea and mild crampy abdominal pain. On examination her abdomen was soft and not tender on palpation. Serum BHCG levels at this stage were 8273. Transvaginal ultrasound showed an empty uterus with an extra uterine gestational sac. Within the sac was a yolk sac and a fetal pole measuring 5 weeks gestation with cardiac activity present (see figure 1/2)

Due to the presence of an extrauterine pregnancy with fetal cardiac activity a laparoscopy was performed. At laparoscopy the known fundal fibroid was noted and the ovaries and tubes were normal (figure 3). There was no evidence of uterine perforation. On evaluation of the pouch of Douglas an ectopic pregnancy was noted on the rectum (figure 4.) This was in keeping with the previous ultrasound findings. The ectopic tissue was adherent to the rectum and therefore a laparoscopic

Figure 3, Overview of pelvis at laparoscopy

suction device was used to open the mass bluntly and remove the gestational sac. It was felt that removal of all ectopic tissue would come at a high risk of a rectal injury so this was not attempted.

As some tissue was left in the abdomen she was treated with

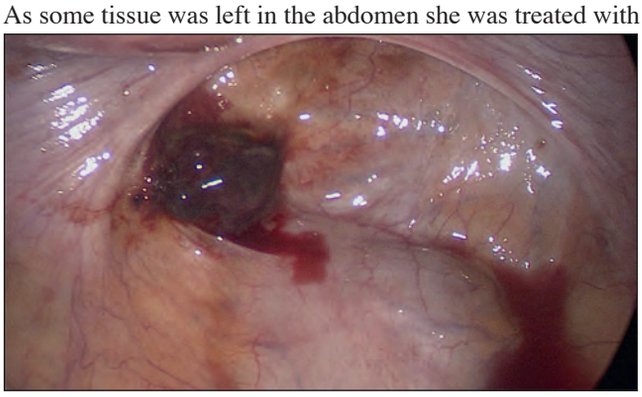

Figure 4, abdominal ectopic implanted on the rectum.

intramuscular methotrexate the day following laparoscopy. Her BHCG levels fell from 8273 to 271 one week following methotrexate. Within two weeks they had fallen further to 40 and she was discharged.

DISCUSSION

While an ectopic pregnancy is a relatively common presentation it is usually confined to a fallopian tube. When implantation occurs in the abdominal cavity this can present differently to a tubal ectopic depending on the implantation site.

In this case we have described how a rectal ectopic can present with gastrointestinal symptoms (diarrhoea) alongside more common symptoms such as vaginal bleeding and pain. As complete surgical excision of the pregnancy would have come at a high risk of rectal injury, medical therapy was used as an adjunct in accordance with national guidelines.

While an abdominal ectopic pregnancy is rare it also can be life threatening. It should always be considered when evaluating women with pelvic pain in pregnancy, especially when there are gastrointestinal symptoms. We hope that reporting this case will lead to increased awareness amongst clinicians.

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