Abdominal ectopic pregnancy after caesarean hysterectomy: a case report

Holding GC1, Clerk N2, Thomson AJM1
1Worcestershire Acute Hospitals NHS Trust, Worcester, UK; 2Glan Clwyd Hospital, Rhyl, UK

Introduction
Ectopic pregnancy after hysterectomy is extremely rare, with only 72 cases previously reported worldwide since 18951. 42% of previously reported cases occurred where the pregnancy already existed at the time of hysterectomy. Pregnancy can also occur remotely from time of hysterectomy, sometimes many years later. In these cases, sperm have gained entry to the peritoneal cavity via a fistulous tract2. We present a case of ectopic pregnancy occurring 9 years after caesarean hysterectomy.

Case Report
A 38-year-old woman presented with suprapubic pain, dysuria and fever. Nine years earlier she had a total abdominal caesarean hysterectomy with conservation of ovaries at the time of her 3rd caesarean, due to placenta percreta. At presentation her urine pregnancy test was positive and serum βhCG was 2409 mIU/mL. Emergency laparoscopy was performed due to ongoing pain and deterioration. A haemorrhagic lesion attached to the sigmoid colon was removed with histology confirming an extra-uterine gestation. Post operatively, hCG levels were monitored until <1. Contraceptive options were discussed in detail and the option of partner vasectomy was chosen.

Discussion
Ectopic pregnancy after hysterectomy is very rare with only 73 cases, including this one, reported worldwide since 18951. 41% presented “early” i.e. occurring in the immediate period after hysterectomy. In these cases, a pre-clinical pregnancy existed at the time of hysterectomy. Time to presentation ranges from 24 days to 13 weeks2. It is possible to prevent such cases by avoiding surgery in the luteal phase, avoiding recent vaginal intercourse or ensuring reliable contraception/previous sterilisation.

“Late presentation” occurs months to years after hysterectomy. The longest time interval documented being 12 years2. In these cases, sperm have gained entry to the peritoneal cavity via a fistulous tract between the vagina and peritoneal cavity2. Interestingly, our case is one of only five following a total abdominal hysterectomy, demonstrating that vaginal-to-peritoneal fistula can even develop after this procedure although the small number of such cases would suggest that it is less likely to occur. This is presumably because the residual tubes and ovaries are more distant from the vaginal cuff during abdominal hysterectomy cuff closure2.

In order to prevent “late presentation” ectopic pregnancies, attention needs to focus on prevention of vaginal-to-peritoneal cavity communication. Care should be taken not to incorporate the fallopian tube into the vaginal cuff and postoperative vaginal cuff granulation tissue should be differentiated from prolapsed fallopian tube4. When the cervix is left in situ, techniques should be used to obliterate or isolate the residual cervical canal to prevent sperm from gaining access the peritoneal cavity2. The increasing practice to remove fallopian tubes at time of hysterectomy may further reduce the chance of this occurrence in the future.

Conclusion
The incidence of post-hysterectomy ectopic pregnancy appears to be increasing. As such, clinicians must maintain a high index of suspicion when patients with hysterectomy and conservation of ovaries present with acute abdominal or pelvic pain, performing a urinary pregnancy test in the first instance.

References:
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