Case report: a 31-week primigravida presenting with uterine contractions, positive Actim Partus and suspected ovarian torsion on ultrasound

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1 Background

In pregnancy, surgical causes of acute abdominal pain represent a significant diagnostic challenge to clinicians. Pregnancy-related changes impact how patients present. The gravid uterus limits the utility of the abdominal examination, normative laboratory values are altered and clinicians are reliant upon ultrasound for diagnostic imaging given the fetal harms CT imaging may pose [1]. Hence, such presentations are associated with delays to diagnosis [2] and may initially masquerade as 'physiological' pain of pregnancy or threatened pre-term labour.

Biochemical tests such as fetal fibronectin and Actim Partus aid in the assessment of suspected pre-term labour. Actim Partus has a negative predictive value of 97% for preterm birth within 7 days. Conversely, its positive predictive value for birth within the same time period in symptomatic women is limited, as low as 47% [3]. Hence, a positive result may mislead the unaware clinician into premature closure of the workup of the pregnant woman with abdominal pain.

2 Case Report

An 18-year-old primigravida presented to a regional hospital at 31 weeks gestation with 3 days of worsening generalised colicky abdominal pain, worst in the right lower quadrant. She had no vaginal losses, urinary or gastrointestinal systems. On examination, her abdomen was soft, generally tender with 3-5 palpable mild uterine contractions in every 10 minutes. On speculum examination, the cervix was closed but Actim Partus positive. Bloods showed an elevated white cell count of 19.1 and CRP of 20. Urinalysis was normal. Tocolysis with oral nifedipine and antenatal corticosteroids were initiated and the patient was transferred to a tertiary centre in anticipation of an increased likelihood of very preterm birth. Following transfer, her pain continued to escalate despite opioid analgesia and ongoing tocolysis.

Subsequent ultrasound imaging showed no features of fetal compromise, a 23mm long cervix, a normal appearing appendix and a 6cm complex right ovarian cyst with absent colour Doppler flow. A clinical diagnosis of ovarian torsion was reached. Given onset of symptoms >96 hours prior, irreversible necrosis of the ovary was suspected and conservative management was pursued.

However, due to ongoing severe pain 24 hours later, laparoscopy was performed. Unexpectedly, the right ovary was not torted and an uneventful excision of a ruptured cystic teratoma was performed. In the post-operative recovery bay, the patient had ongoing severe abdominal pain with abnormal cardiotocography. She underwent emergency Caesarean section with significant findings of ongoing bleeding from the ovarian cystectomy site. Post-operatively her pain improved and she had an uneventful recovery. Histopathology confirmed benign dermoid teratoma.

3 Conclusions

In the presence of clinical concern for preterm labour, Actim Partus is a useful tool used in the assessment of the pregnant woman with abdominal pain. It cannot however replace clinical judgement and obstetricians must be vigilant to less common causes of acute abdominal pain, especially with atypical presentations.

4 References

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