Medical Management of Miscarriage

Scope and Purpose

Miscarriage occurs in 10–20% of clinical pregnancies. RCOG guidelines recommend that the full range of therapeutic options (expectant, medical and surgical) should be available to women who miscarry. And that apart from certain specific clinical circumstances, women should be able to choose their preferred method of management. Presently RPAH offers expectant and surgical management of miscarriage. The Clinical Excellence Commission “Improving Early Pregnancy Care” recommended that RPAH Early Pregnancy Assessment Service consider offering medical management.

Background

Two forms of prostaglandin E1, cervagem and misoprostol are available. Cervagem (gemeprost) has been traditionally used in obstetrics and gynaecology and is licensed for use in this context. Misoprostol (cytotec), which is widely used but not licensed for use in obstetrics and gynaecology, has been shown to be as effective and safe for medical management of miscarriage as cervagem, is cheaper and does not require refrigeration.

Treatment with vaginal misoprostol has been found to hasten miscarriage compared with placebo both within 24 hours (RR 4.73, 95%CI 2.70-8.28), within 48 hours (RR 5.74, 95%CI 2.70-12.19) and complete miscarriage without need for surgical intervention at seven days (RR 2.99, 95%CI 1.80-4.99). There is less need for dilatation and curettage (RR 0.40, 95%CI 0.26-0.60) and no increase in nausea (RR 1.38, 95%CI 0.43-4.40) or diarrhoea (RR 2.21, 95%CI 0.35-14.06). Medical management with misoprostol is cheaper than surgical management and more women would choose this treatment again than those who require subsequent D&C. Infection rates are 2-3% regardless of the mode of management of miscarriage.

Misoprostol is more effective when administered vaginally compared to oral dosing. The most effective dose, without an increase in side effects, is 800mcg.

Indications

Missed miscarriage: Fetal pole <9 weeks gestation (25mm) and no fetal heart beat

Anembryonic pregnancy/early fetal demise: gestation sac of >20mm or more with no fetal pole seen.
Incomplete miscarriage: No gestation sac, but retained placental tissue, post D&C RPOC. When a woman has decided that she does not wish to undergo a surgical procedure nor conservative management and there are no contraindications to medical management.

Contraindications

**Absolute:**
- Adrenal insufficiency
- Long term glucocorticoid therapy
- Haemoglobinopathies or anticoagulant therapy
- Anaemia (<10g/L)
- Porphyria
- Mitral stenosis
- Glaucoma
- Non steroidal anti-inflammatory drugs within the previous 48 hours
- Haemodynamically unstable
- Suspected hydatidiform molar pregnancy on ultrasound

**Relative:**
- Hypertension (BP>140/90)
- Severe asthma

Potential Side Effects

*Reported adverse effects of taking misoprostol (cytotec) are:* abdominal pain, nausea, flatulence, headache, dyspepsia, vomiting and constipation.

*Side Effects of cervagem (gemeprost):* Vaginal bleeding, cramps, nausea, vomiting, loose stools or diarrhoea, headache, muscle weakness; dizziness; flushing; chills; backache; dyspnoea; chest pain; palpitations and mild pyrexia. Rare: Uterine rupture, severe hypotension, coronary spasm with subsequent myocardial infarctions.
Protocol

1. Confirm diagnosis of miscarriage on ultrasound scan

2. Detailed medical history and check for contraindications/allergies

3. Check full blood count, blood group and antibody screen, U&E, LFTs

4. Give anti D if rhesus negative

5. Offer women choice of conservative, medical or surgical management as appropriate

6. Give patient information leaflet

7. Obtain written consent midwife/doctor using standard consent forms

8. Consent for pathological examination of fetal tissue/POC

9. Again check for possible contraindications and check the blood results

10. Check whether patients need prophylactic antibiotics (eg prosthetic heart valves, SBE risk)

11. Prescribe and give the woman 800mcg misoprostol stat vaginally and allow the patient to go home 30 minutes later OR give one 800mcg misoprostol to be given vaginally at home

12. Give analgesia (panadeine forte to take at home) – NOT NSAIDS as may reduce the effectiveness

13. Explain and give written information about what to expect regarding the amount of blood loss, products of conception, clots and uterine cramps

14. Let the gynaecology registrar on call know that a patient has been given vaginal misoprostol and ensure that this is passed on at handover time

15. Obtained products of conception should be kept and sent to histopathology to exclude gestational trophoblastic disease

16. Give patient phone number to call if they have any questions

17. Midwife to ring the patient at home the day after the misoprostol is given or next working day after the misoprostol is given

18. See in the EPAS clinic two weeks later
References

2. RCOG green top guideline: Early pregnancy loss
3. Warner A, Saxton A. Improving Early Pregnancy Care. Review of services for women who have a problem in early pregnancy at RPAH Women and Babies 18/03/10. Clinical Excellence Commission

Resources and Acknowledgements

1. Earlypregnancy.org.uk
2. Jo Topping, Consultant obstetrician and gynaecologist at Liverpool Women’s Hospital UK