MISCARRIAGE

MISCARRIAGE

Defined as;

The expulsion of a pregnancy,embryo,or fetus at a stage of pregnancy when it is incapable of independent survival:

includes all pregnancy losses before 24wks

INCIDENCE

- Miscarriage is common, occurring in at least 15–20% of pregnancies
- Possibly up to 40% of all conceptions
- The vast majority are before 12wks
- Incidence ↓ after the 8^{th} week of POA (10%)
- Risk ↓ to 3 % if a viable fetus has been recognized on ultrasound scan

RISK FACTORS

- Maternal age - Advanced maternal age leads to ↓number of good quality oocytes and ↑ risk of miscarriage
- Chromosomal abnormalities
- Medical/endocrine disorders
- Uterine abnormalities
- Infections
- Drugs/chemicals

TYPES OF MISCARRIAGE

Threatened miscarriage	• Bleeding ± • Abdominal pain • Closed cervix
Complete miscarriage	• Bleeding and pain cease • Closed cervix
Incomplete miscarriage	• Bleeding ± • pain possible • Open cervix
Missed miscarriage / early fetal demise	• ± Bleeding & pain • ± loss of pregnancy symptoms • Close cervix
Inevitable miscarriage	• Bleeding ± pain • Open cervix

MISCARRIAGE

Type	USS findings	Management
Threatened miscarriage	Intrauterine gestation sac Fetal pole Fetal heart activity	Anti-D if ; >12wks heavy bleeding pain
Complete miscarriage	Empty uterus Endometrial thickness <15 mm	Anti-D if; >12wks Serum hCG to exclude ectopic Review if bleeding >2wks ; Consider endometritis,retained products of conception
Incomplete miscarriage	Heterogenous tissues ± gestation sac endometrial thickness	Expectant generally preferable/medical/surgical Anti-D if ; >12wks heavy bleeding pain medical/surgical management

MISCARRIAGE

Type	USS findings	Management
Missed miscarriage	Fetal pole >7mm with no fetal heart activity Mean gestation sac diameter >25mm with no fetal pole or yolk sac	Rescan in 1wk Anti-D if heavy bleeding or pain
Inevitable miscarriage	Intrauterine gestation sac ± fetal pole ± fetal heart activity	Expectant/medical/surgical Anti-D if; >12wks heavy bleeding pain medical/surgical Mx

EXPECTANT MANAGEMENT

- Appropriate in those women who are not bleeding heavily
- It is highly effective for women with an incomplete miscarriage
- In women with an intact sac, resolution may take several weeks and may be less effective
- Expectant management can be continued as long as the woman is willing and provided there are no signs of infection.
- An increasing bleeding pattern at inclusion and ultrasound findings such as blood flow within intervillous spaces can be used to predict the likelihood of successful expectant management.

EXPECTANT MANAGEMENT

- A repeat TVS should be offered at 2wks to ensure complete miscarriage - can be repeated after another 2wks if a woman wishes to continue with conservative management

- Patients should be offered medical management or surgical evacuation at a later date if expectant management is unsuccessful

MEDICAL MANAGEMENT

- Prostaglandin analogues (usually misoprostol) are used, administered orally or vaginally, usually with antiprogesterone priming (mifepristone) 24–48h prior.
- Bleeding may continue for up to 3wks after medical uterine evacuation.
- Women should be warned that passage of pregnancy tissue may be associated with pain and heavy bleeding and 24h telephone advice and facilities for emergency admission should be available.
- Need surgical treatment if medical treatment fails.

MEDICAL MANAGEMENT

- An one variety of equally effective prostaglandin regimens can use.
  1. Gemeprost 0.5–1 mg
  2. Vaginal misoprostol 800 µg and oral misoprostol 400 µg.
  3. Single and repeated doses of oral misoprostol 600 g (with the dose repeated after 4 hours to a total of 1200 g)
- Vaginal misoprostol is as effective as oral misoprostol

MEDICAL MANAGEMENT

- Or antiprogestogen mifepristone (200, 400 or 600 mg orally) followed 36–48 hours later by either misoprostol or gemeprost (0.5–1mg vaginally)

- Mifepristone 200 mg, in combination with oral misoprostol, was equally effective and better tolerated than mifepristone 600 mg.

CONTRAINDICATIONS FOR MEDICAL MANAGEMENT

Absolute

- Adrenal insufficiency
- Long term glucocorticoid therapy
- Haemoglobinopathies
- Hb <10 g/dl
- Porphyria
- Mitral stenosis
- Glucoma
- NSAID ingestion in previous 48hrs

Relative

- Hypertension
- Severe asthma

SURGICAL MANAGEMENT

- An ERPC should be performed in;
  - Excessive bleeding
  - Persistent bleeding
  - Request surgical management
  - Infection under antibiotic cover
- Suction curettage should be used.
- Surgical evacuation remains the treatment of choice if endometrial thickness is 50 mm

SURGICAL MANAGEMENT

- Antibiotic prophylaxis should be given based on individual clinical indications.
- An appropriate regimen would be 1 g rectal metronidazole at the time of surgery followed by 100 mg oral doxycycline twice daily for 7 days.

COMPLICATIONS OF SURGICAL MANAGEMENT

- Infection.
- Haemorrhage.
- Uterine perforation (and rarely intraperitoneal injury).
- Retained products of conception.
- Intrauterine adhesions.
- Cervical tears.
- Intra-abdominal trauma.

COUNSELLING

- Patients who have suffered miscarriages should be offered counselling to ensure that they understand that most miscarriages are nonrecurrent.

- They should also be provided with the necessary psychological support where necessary.

Postmiscarriage counselling: patient's FAQs

- **What did I do to cause it?**

  Nothing. It was not stress at work, carrying heavy shopping, having sex, or any other reason women commonly worry about. Sadly, miscarriages happen in up to about 40% of pregnancies.

- **If I had had a scan earlier could you have stopped it happening?**

  No, we might have found out it was happening sooner, but we could not have stopped it. There is no effective treatment available to stop a 1st-trimester miscarriage.

Postmiscarriage counselling: patient's FAQs

- **How bad will the pain be if I opt for expectant management?**

  It will be like severe period pain, which comes to a peak when tissue is being passed, then settles down shortly afterwards. Ibuprofen, paracetamol, or codeine should help and may be taken. If pain is very bad contact hospital for advice.

- **What is heavy bleeding?**

  Soaking more than 3 heavy sanitary pads in under 1h or passing a clot larger than the palm of your hand. If you bleed heavily you should seek medical attention urgently.

Postmiscarriage counselling: patient's FAQs

- **How long will I bleed for?**

  It should gradually get less and less but may be up to 3wks after the miscarriage before the bleeding stops completely.

- **Do I need bed rest afterwards?**

  No, not necessarily, but obviously it can be physically and emotionally draining so a few days off work may help. You can return to normal activities as soon as you feel ready.

Postmiscarriage counselling: patient's FAQs

- **How long will the pregnancy test remain positive?**

  hCG is excreted by the kidneys and it can take up to 3wks after a miscarriage for it all to be removed from the bloodstream and a pregnancy test to record as –ve.

- **How long before we can try again?**

  There is no good evidence that the outcome of a subsequent pregnancy is affected by how soon you conceive after a miscarriage. As long as you have had either a period or a –ve pregnancy test since you miscarried, you can try again as soon as you feel physically and emotionally ready.

RECURRENT MISCARRIAGE

Three or more consecutive, spontaneous miscarriages occurring in the first trimester with the same biological father, which may or may not follow a successful birth.

- Incidence is 1–2% and half of these are unexplained.
- Advanced maternal age and increasing number of miscarriages are two independent risk factors.

CAUSES FOR RECURRENT MISCARRIAGE

- Antiphospholipid syndrome (15%)
- Genetic
- Fetal chromosomal abnormalities
- Anatomical abnormalities
- Fibroids
- Thrombophilic disorders
- Infection
- Endocrine disorders
- Cervical weakness
- Immune dysfunction

RECURRENT MISCARRIAGE

- **There are a very small number of women who will have recurrent miscarriages**

- But for the vast majority, next time they get pregnant

- They will face the same odds; 40% risk of miscarriage and 60% chance of a baby.