# Miscarriage:
## Offering Options

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Spontaneous miscarriage occurs in approximately 15% of clinically recognized pregnancies. Current management frequently involves surgery, which has the potential for serious complications (*i.e.,* infection, uterine perforation). Sequelae from spontaneous miscarriage are uncommon and, with proper followup, an increasing number of options can be offered.

### Investigations

Ultrasound can determine the type of miscarriage. A complete miscarriage (intrauterine echogenic mass < 15 mm) requires no intervention. Other types of miscarriage—incomplete, delayed (non-viable fetus with no or minimal bleeding) and anembryonic pregnancy—can be managed either expectantly or medically, depending on the amount of active bleeding.

### Management options

Management includes surgical, expectant management and medical induction with misoprostol. Under all situations, the woman should be given an informed choice. Some women choose surgical intervention, preferring rapid closure or they are unsure if they can cope with a natural miscarriage (*i.e.,* bleeding, cramps, uncertainty). Other women prefer a non-medical or non-surgical approach.

#### *1) Surgical: Dilatation and curettage or vacuum aspiration*

The advantages include nominal pain, rapid closure and minimal need for followup. Disadvantages include surgical waiting times, hospital costs, potential for surgical complications (2%) and the patient may not have come to terms with her loss.[1]

Vacuum aspiration under local anaesthetic, decreases the incidence of blood loss, perforation and cervical laceration. There is rapid recovery and it can be performed as an office/clinic procedure with high patient acceptability and greater economy than general anaesthesia.

### Molly's case

- Molly, gravida 3, para 2, and eight weeks, presents due to cramps and mild vaginal bleeding.
- Her physical exam reveals her cervical os is closed with a small amount of blood present.
- An ultrasound reveals fetal demise at approximately six weeks (delayed miscarriage).
- Molly is presented with options.

**For more on Molly, go to page 68.**

#### *2) Expectant management (wait-and-see approach)*

In a study of 1,096 consecutive patients with complete, incomplete, missed or anembryonic miscarriage based on ultrasound, researchers found that 91% of incomplete, 76% of delayed and 66% of anembryonic miscarriages completed spontaneously. Seventy per cent completed within 14 days (84% for incomplete and 52% for missed/anembryonic). The compli-

## Options for Molly

- Molly decides to wait for a natural miscarriage.
- Five days later, the cramps and bleeding intensified and the products of conception were expelled, after which bleeding similar to menstruation occurred.
- Repeat ultrasound confirms the miscarriage is complete and there are no complications.

cation rate was 1%.[2]

Advantages of expectant management are patient autonomy, privacy and non-invasiveness.

Disadvantages include a need for followup, a longer time to completion, the possibility for heavy bleeding and cramps and the potential need for urgent surgical evacuation.

Patient satisfaction is high, however, counseling around expectations (length of time to completion, cramps and bleeding) is the key to a successful outcome.

### *3) Medical induction with misoprostol*

Misoprostol (prostaglandin E1) is indicated for the prevention of peptic ulcers due to non-steroidal anti-inflammatory drugs. Misoprostol has been used off-label for miscarriage, medical abortion, pre-operative cervical dilatation, induction of labour and postpartum hemorrhage.[3]

Studies for spontaneous miscarriage using misoprostol, 800 mg, once daily for two to three doses, show success rates of 94%, with the majority (in the 70% range) completing within 24 hours of the first dose.[1,3,4]

Vaginal misoprostol is more efficient than oral misoprostol and has less gastrointestinal side-effects. Compared to expectant management, misoprostol induction is not associated with an increased need for analgesics.

Advantages of misoprostol include:

- immediate patient autonomy,
- patient privacy,
- non-invasiveness,
- inexpensivness and
- decreased time to completion than expectant management.

Disadvantages compared to surgery are the need for followup, longer time to completion, heavier bleeding, more cramps and the possible requirement of surgical evacuation.

## *Requirements for expectant or medical management*

The requirements for expectant or medical management include:

- the ability to understand what will happen (bleeding, cramps, passage of tissue),
- commitment to followup,
- no suspicion of pathology (molar/ectopic pregnancy) and
- access to a telephone and to 24-hour medical care.

## *Contraindications to expectant or medical management*

The contraindications to expectant or medical management include:

- excessive bleeding,
- anemia,
- infection and
- pathology.

## *Conclusion*

There is a myriad of evidence supporting the use of expectant and medical management in spontaneous miscarriage. Under non-urgent situations, women should be offered a choice of the available options. Dx

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