MANAGEMENT OF SPONTANEOUS MISCARRIAGE

Adapted for Pakistan from the Green top RCOG guideline No: 20a, 2006

By the Guideline Committee of SOGP through consensus & literature review

Reviewed by: The executive Body of SOGP

Endorsed by: The CPSP

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1. Purpose and Scope

Clinical guidelines have been developed to assist clinicians and patients in making decisions about appropriate management of miscarriages. Here we will mainly address the spontaneous miscarriage, which is defined' as pregnancy loss with in first 20 weeks.

2. Background

Miscarriage is usually a distressing experience. Emotional support and care is essential throughout the course of assessment, decision-making and treatment .In Pakistan out of every 100 women 14 ends up in miscarriage [1], it has been estimated that about one million miscarriages occur per year.36.81% of miscarriage are conducted by unskilled traditional birth attendants (TBA).[2]

Complications of miscarriages account for 12.5 % of maternal deaths.[5]

Although surgical curettage has been the standard care for more than 50 years, there is now good evidence that expectant and/or medical management can be appropriate for some women. Care should include information and advice about options which are medically appropriate for each woman's particular situation and support in decision making

3. Service provision

Dedicated out patient “Abortion care services” should be included in the existing frame of health care system with training of the same staff in the diagnosis and management of miscarriage.

4. Definition of terms

4.1 Early pregnancy loss: gestation up to 13 weeks and 6 days.

4.2 RPOC: Retained products of conception.

4.3 Miscarriage: The recommended medical term for pregnancy loss less than 20 weeks is 'miscarriage' in both professional and direct care contexts. The term ‘abortion’ should not be used. Types of miscarriages are outlined below.

5. Clinical presentation and diagnosis

Diagnosis of miscarriage is based on confirmed passage of RPOCs or ultrasound findings.

5.1 Missed miscarriage: This includes ‘early fetal demise’ and ‘blighted ovum’. Criteria for miscarriage diagnosis are: vaginal u//s showing no fetal heart activity with fetal pole >6mm or gestational sac >20mm without fetal pole or lack of sac/ fetal growth.

5.2 Incomplete miscarriage: Some product of conception remained in the uterus. There is a history of pregnancy symptoms followed by an episode of heavy bleeding with passage of clots. If RPOCs are passed vaginally, management may be based on clinical grounds.

5.3 Complete miscarriage: clinical assessment and/or previous ultrasound examination have confirmed intrauterine pregnancy and all the product of conception have been passed.

5.4 Hydatidiform mole is usually diagnosed by ultrasound examination or histology. Treatments include suction evacuation and then follow up with serial beta HCG.

5.5 Septic miscarriage: Any type of miscarriage accompanied by evidence of intrauterine infection; urgent treatment is required

6. Investigations

- Blood group and Rh factor.
- Complete blood count
- Hepatitis B and C screening
- Transvaginal ultrasound
- High vaginal swab and blood cultures in septic miscarriage.

6.1 Role of ultra sound, serum beta HCG and progesterone levels

Ultrasound, serial beta HCG levels and serum progesterone are not considered to be essential pre requisites of abortion in all cases but services must have an access.

7. Management Modalities

- **Surgery**
- **Medication**
- **Expectant**

7.1 Selecting an appropriate management method.

Consider following factors

a. Clinical **symptoms/signs**

- Active pain and/bleeding usually warrant surgery regardless of type of miscarriage.
- Signs suggestive of intrauterine infection such as uterine tenderness or purulent discharge indicate prompt evacuation after broad spectrum antibiotic cover.

b. **Type of Miscarriage**s

- Missed miscarriage
- Incomplete miscarriage.
- Complete miscarriage.
- Septic miscarriage.

8. Treatment options according to the size of sac

With increasing sac size there is a tendency to shift the recommendation from expectant to medication to surgical management.

Sac or RPOCs <15mm	Expectant management
Sac or RPOCs 15-35mm, CRL<25mm	Expectant, medical or surgical management
Sac >35mm, RPOCs>50mm, CRL>25mm	Usually surgical management
Failed expectant management	Usually medical or sometimes surgical management
Failed medical management	Usually surgical management, sometimes repeat medication required
Heavy bleeding or evidence of infection	Usually surgery unless product of conception in vagina

9. Expectant management:

9.1 Indications;

Preferred treatment option if:

- Incomplete miscarriage with sac diameter on US <15mm
- Incomplete miscarriage with RPOCs diameter, up to around 35mm (some studies suggest 50mm)
- Missed miscarriage with sac size up to around 35mm (embryo size equivalent to 9+0 wks)

9.2 Treatment schedule;

- Explain treatment to the woman (and partner)
- Provide written information and counsel the couple
- Provide contact numbers / appointments for support services
- Contact the doctor if concerns regarding pain, signs of infection or bleeding.

9.3 Preconditions:

- No active bleeding or infection
- Woman's preference
- Counsel woman regarding pain and bleeding at home
- She should have contact details/plan for emergency care
- Well Compliant for follow up

9.4 Advantages:

- Spontaneous passage of products of conception
- Avoids surgical and anesthetic risks.
- Cost effective
- No need of Hospitalization

9.5 Disadvantages:

- Unpredictable time frame (may take 2/52 for spontaneous resolution) and results
- May have ongoing pain and bleeding
- May require surgical treatment.
- Risk of Sepsis

9.6 Anticipated outcome

- RCTs have quoted a success rate between 16-80% with expectant management for up to 6 weeks; selection criteria and management regimens widely variable.

  Resolution rates higher if:
- Allow 2 weeks for resolution
- Incomplete Miscarriage
- RPOC are <50mm

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9.7 Follow up and monitoring

- Consider rescanning in 1-2 weeks if required.
- Surgical intervention is required if:

Woman becomes symptomatic, woman changes her mind, and wants to have surgical management or tissue becomes infected.

9.8 Prevention of Infective Complication

Miscarriage care should encompass a strategy for minimizing the risk of post-abortion infective morbidity. As a minimum services should offer antibiotic prophylaxis.

The following regimens are suitable for peri-abortion prophylaxis

- Tab Metronidazole 400mg three times daily plus
- Doxycycline 100mg twice daily For 7 days commencing on the day of abortion.

10. Medication Management

- Misoprostol, a prostaglandin analogue, is used to induce/hasten the expulsion of RPOCs from the uterus.
- RCTs have quoted a success rate between 50-95% with medication management for up to 2 weeks; selection criteria and management protocols widely variable.

  Resolution rates are higher than expectant management, lower than surgical management

10.1 Indications:

Suitable treatment option if:

- Missed miscarriage
- Incomplete miscarriage
- No contraindications to prostaglandins such as allergy, severe uncontrolled asthma.

10.2 Advantages:

Allows women to avoid surgical and anesthetic risks

10.3 Disadvantages:

- Unpredictable time frame (allow up to 2-5 weeks for spontaneous resolution) and results
- Concerns with on going pain and bleeding
- Potential for requiring an emergency suction curettage (1%)
- Potential side effects: Nausea, vomiting, diarrhea (up to 40%).

10.4 Preconditions:

- No active bleeding or infection
- Woman's preference
- Ensure woman aware of excessive pain and bleeding at home
- Have contact details/plan for emergency care
- Aware of uncertain time frame and possible need for later/urgent curettage
- Support at home
- Access to phone and medical care
- Well Compliant for follow up.

10.5 Treatment regimen:

- Misoprostol 800mcg PV followed by a repeat dose of 400mcg in 4 hours
- Admit to ward for observation for a total of 6 hours
- Allow to eat and drink
- Prescribe analgesia and anti-emetics (paracetamol 4 hourly Diclofenac 50mg once only, narcotic and metoclopramide as needed).
- 400 micro grams misoprostol 4 hourly had 68 percent success rate in 10 to 28 weeks of pregnancy[3]
- 200 micro grams sublingual misoprostol 4 hourly had no extra advantage to the same dosage of vaginal misoprostol rather nausea and abdominal cramps are increased by the former method.[4]
- No statistical difference was noted in using vaginal versus combined oro-vaginal misoprostol [6,8]

10.6 Follow up of medical management

- Ultrasound examination after passage of RPOCs.
- Anti-D as indicated.
- Exceptions to admission: if the woman has a strong preference to be at home, if she is well supported and clearly understands what is likely to happen and how to get help.
- If RPOC not passed in ward, may offer surgical management or review in one week.

11. Surgical Management (suction/surgical curettage)

11.1 Advantages.

- Allows planned procedure.
- Immediate relief from symptoms.
- Less blood loss and shorter duration of bleeding than expectant/ medical management.

11.2 Disadvantages.

- Risks of surgery i.e. uterine perforation.
- Risk of anaesthesia.
- Infection.

11.3 When to do surgical curettage

- Active pain and/or bleeding and hemodynamically unstable women usually warrant surgery, regardless of type of miscarriage.
- Signs suggestive of intrauterine infection.
- Women's preference

11.4 Treatment schedule

- Contact Operation Theatre to book a time and date for surgery.
- Explain treatment (including risks of surgery and anaesthetic) to the woman and partner, and provide written information.

- Explain contraceptive options including intrauterine contraceptive device (IUCD) and implanon which may be initiated with surgery.
- Obtain written informed consent.
- For missed miscarriages, consider oral or vaginal Misoprostol 200 micro gram 4 hours prior to surgical evacuation. The advantages of prostaglandins administration prior to surgical abortions are well established with significant reduction in dilation force, hemorrhage and cervical trauma especially if the patient is less than 18 years of age or gestation is more than 10 weeks

11.5 Surgical uterine evacuation for miscarriage should be performed using suction curettage.

- Vacuum aspiration is considered as the method of choice for the management of miscarriage.
- Reported complications includes perforation, cervical tears, intra-abdominal trauma, intrauterine adhesions and hemorrhage [12, 13]

For women who are haemodynamically unstable:

- Remove any RPOC from cervix.
- Secure immediately I.V line and arrange blood.
- Send blood for FBC and cross match 2 units.
- Inform Theatre, Anesthetist, and On-call Gynaecology Consultant.
- The urgency of the situation must be stressed to all concerned.
- Surgery should be performed even before blood and fluid losses have been replaced.

NB: Tissue obtained at the time of evacuation should be sent to histology to exclude gestational trophoblastic disease if suspicious.

11.6 On discharge after surgery

- Provide discharge card with operative findings.
- Advise woman of the following:
- To come back for follow-up in 2 weeks or earlier if significant bleeding / pain occur.
- She may take simple analgesia for pain.

12. Post abortion care

- Contraception/future pregnancy should be discussed with women before she is discharged. Intra uterine contraception device (IUCD) can be inserted immediately following a first or second trimester termination of pregnancy. Sterilization at the time of induced abortion is associated with high rates of failure and of regret on the part of women.
- Non sensitized rhesus(Rh) negative women should receive anti-D immunoglobulin in the following situations; ectopic pregnancy, all miscarriages over 12 weeks of gestation (including threatened) and all miscarriages where the uterus is evacuated(whether medically or surgically)
- To avoid vaginal intercourse until bleeding stops
- Provide contact numbers
- Prescribe analgesia, such as paracetamol with codeine.
- Advise woman to come for review at 4-6 weeks or sooner if she has any complaints.
- Specialist follow up if indicated for recurrent (≥3) miscarriages or other medical complications

REFERENCES

1. National committee for maternal and neonatal health services (NMCH) MAY 2009 Khan F.M, Amina A, F-L Ahmed, NK Naeem. medical termination of first trimester miscarriages
2. 2 Bdour NA Akasheh A, A Jayousi T. missed abortion; termination using single dose verses two doses of vaginal Misoprostol tablets. PJ MED SCI 23,(6)920-923

3 AwanSA, Bakhtiar U,N Riffat, Akhter S .management of first trimester miscarriage with minimal surgical intervention. Pak armed forces med J 2008VOL 8.

4 FM Khan, Attiqua, FL Ahmed, NK Naeem. The medical management of first trimester .annals f king Edward medical 2007.13(2)

5 Najmi R. Complication attributed to illicit Abortion.J Pak assoc 1998 48(2) 42-5.

6 FawadA, NazH, KhanK, Nisa S.J Ayub med coll abbo.2008.2008.2 (4), 195-.

7 Farzana F, sheikh JanalN ,Malikn, Malik M, Javed L. Mid trimester termination of pregnancy comparison of sub lingual with vaginal misoprostol. Biomedic J2004,20(1) 56-9

8 Kamal R, Parveen F, Mazhar BS. Role of Misoprostol in vaginal verses double oro vaginal route for termination of pregnancy in mid trimester pregnancy. Ann Pak Sci 2005; 1 (4) 196-200.

9 NadraS Naz S. Roleo. Misoprostol for therapeutic termination of pregnancy from 10-28 weeks of gestation. Jpak med assoc 2007, 57(3); 129-32.

10 Ashraf R, Gul A, Noor R, Nasim chohan...Septic induced abortion maternal mortality and morbidity.Ann king Edward med col 2004, 10 (4)346-7.

11 Ashraf M, Sheikh NH, A H Sheikh, Yusuf WA, maternal mortality; A 10 years study at lady Wallington hospital Lahore. Ann medical2001,7 (3);2087

12 J Bradly N Sikazwe J Healy. Improving abortion care in Zambia. 1991,22(6)391-4

13 LukmanHY, D Pogharian. Management of in complete abortion with manual vacuum aspiration in comparison to sharp curette in an Ethiopian setting. East Afr Med J. 1996, 73 (9), 598-603.

14 K Rogo. Manual vacuum aspiration saves live. Plan parent 1993(1) 32-3.