MISCARRIAGE AND ECTOPIC PREGNANCY 2: MANAGEMENT

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This two-part unit explores miscarriage and ectopic pregnancy. This part, part 2, outlines diagnosis, management and key nursing interventions. It also discusses the emotional impact of pregnancy loss.

MANAGEMENT OF MISCARRIAGE Diagnosis

Women who are up to 13 weeks pregnant presenting with the key symptoms of vaginal blood loss and pelvic pain should be referred to an early pregnancy unit (EPU). This will offer rapid assessment and ultrasound scanning, either transvaginally or abdominally, to confirm the diagnosis of miscarriage and exclude ectopic pregnancy. If inconclusive, blood will be taken to detect levels of human chorionic gonadotropin (hCG) – a hormone produced in early pregnancy to maintain progesterone levels to keep the pregnancy viable. It is detectable in urine and blood, and levels increase steadily, peaking at 14 weeks since the last menstrual period. In early miscarriage, these levels fall.

Treatment options

Expectant management: This is an option where the miscarriage is allowed to proceed of its own accord without active medical intervention. Nielsen et al (1999) concluded that most cases of spontaneous, incomplete miscarriage would become a complete miscarriage without intervention. However, this may not be appropriate for all types of miscarriage, such as delayed miscarriage (Jurkovic et al, 1998).

The Royal College of Obstetricians and Gynaecologists (2006) stated that expectant management can be considered as an acceptable alternative technique. However, it may take several weeks and patients should be counselled on what to expect, in particular the levels of pain that may require analgesia and the amount of bleeding they may experience (Ogden and Maker, 2004).

Surgical intervention – evacuation of retained products of conception (ERPC):

This option is offered to those who miscarry between 9–12 weeks’ gestation (RCOG, 2006). The woman is admitted to hospital, prepared for theatre and a cervical priming agent, such as misoprostol (a prostaglandin analogue), is given pre-operatively to facilitate cervical dilation. Under a general anaesthetic the products of conception are removed through suction or curettage.

This is seen as day surgery with special attention paid in the post-operative period to the amount and type of vaginal blood loss that would indicate haemorrhage. There are risks involved, including anaesthetic problems, infection, haemorrhage and a small risk of perforation of the uterus.

Medical management: This is used where the pregnancy is less than 63 days and does not usually involve surgical intervention. For delayed miscarriage, the treatment is in two stages:

• Mifepristone, an anti-progestin, is given orally. This blocks the action of progesterone and hastens the onset of uterine contractions and vaginal bleeding.

• After 36–48 hours, if miscarriage is still incomplete, the second stage of treatment begins and vaginal pessaries containing misoprostol are inserted. The action of prostaglandin further increases uterine contractility, leading to ERPC.

After a vaginal examination and assuming the vaginal blood loss is not heavy, patients can be discharged. Blood loss will continue for an average of 10 days. Again, women need to know what to expect, including the side-effects of drugs, which can include gastrointestinal upset. Some women experience high levels of pain and need analgesia. In addition, vaginal blood loss is monitored as it can be heavy.

In the case of incomplete miscarriage, vaginal pessaries containing misoprostol are administered. Women then stay in hospital for 6–8 hours during which time the products of conception should be expelled.

In both cases, around 5% of women may need surgical intervention to ensure the uterus is empty.

MANAGEMENT OF ECTOPIC PREGNANCY

As with miscarriage, women presenting with signs and symptoms suggestive of ectopic pregnancy should be referred to an EPU. However, even with ultrasound scanning it can be difficult to confirm the diagnosis in early ectopic pregnancies (RCOG, 2006). As such, in addition to scanning, a blood test is taken to measure levels of hCG. These levels are usually but not always reduced. There are limitations in using either just an ultrasound scan or relying solely on serum hCG levels as they may not accurately detect ectopic pregnancy in every case. Ideally a combination of repeated ultrasound scanning and serial beta hCG levels should be performed until the diagnosis is certain.

Treatment options

Expectant management: A diagnosed ectopic pregnancy can be treated with expectant management for women who are clinically stable and asymptomatic with an
initial hCG level of <1,000iu/l (RCOG, 2004). In some cases, ectopic pregnancy will spontaneously resolve without any surgical or medical intervention.

Twice-weekly hCG levels and transvaginal ultrasound-scan surveillance is required. Once a rapid decrease in hCG levels has been recorded, weekly monitoring of these and scanning can be undertaken until they are <20iu/l. A disadvantage of this method is the chance that any intraperitoneal bleeding is not reabsorbed spontaneously. This may have an effect on future fertility due to potential adhesion formation (Gangar, 2001). Women undergoing expectant management must be informed about the importance of compliance to treatment regimes and the need for prolonged monitoring and follow-up care (Gangar, 2001).

Surgical intervention – laparoscopy and laparotomy: Traditionally, ectopic pregnancies have been diagnosed and treated by surgery (Jurkovic, 2007). With advances in surgical techniques, the laparoscopic approach has become the preferred method in patients who are haemodynamically stable (RCOG, 2004). There are advantages to the laparoscopy for ectopic pregnancy management: shorter hospital stay; less blood loss; reduced adhesion formation; less operative time; less analgesia; and shorter convalescence (Istre, 2006). However, there is an increased risk of incomplete removal of trophoblast tissue (Tamizian and Arulikumaran, 2004). As such, it is recommended that weekly hCG levels are recorded until satisfactory levels are obtained (Istre, 2006).

In some cases, laparotomy may be needed and surgery performed on the fallopian tube to remove the pregnancy (salpingotomy) or the tube itself (salpingectomy).

Medical management: The most widely used medical treatment is intramuscular methotrexate (RCOG, 2004). Methotrexate is a chemotherapeutic agent that disrupts cell multiplication (Kirk, 2006). The single dose is calculated from patient body surface area (50mg/m²) and initial hCG levels should be <3,000iu/l (RCOG, 2004). Contraindication to medical therapy is foetal cardiac activity (RCOG, 2004). Following administration of methotrexate, hCG levels are taken on day four and day seven and then monitored on a weekly basis until levels are <10iu/l (Kirk, 2006). If a 15% decrease in hCG levels does not occur between day four and seven a further dose may be required (RCOG, 2004).

There are occasional side-effects of methotrexate such as stomatitis, conjunctivitis and gastrointestinal upset (Jurkovic, 2007; RCOG, 2004). Additional side-effects include alopecia and headaches, as well as disturbances in renal and hepatic function, which require close monitoring.

EMOTIONAL EFFECTS OF PREGNANCY LOSS
There is increasing awareness of the emotional effects of pregnancy loss on women. Although each woman may react differently, there is a consensus that it is a distressing experience for most. Women not only lose the pregnancy itself but also the certainty that they can have a successful pregnancy.

In the case of ectopic pregnancy, the woman has suffered a very real threat to her potential fertility if the fallopian tube has been damaged or lost. Research evidence in this area indicates that women may suffer significant anxiety after pregnancy loss and some may become depressed, which can persist for many months after the event (Cummings et al, 2007). This has tended to be interpreted as women experiencing grief and bereavement, hence guidelines for health professionals emphasise the need to offer emotional care to support women through this (Kohner, 1995).

Women move through a transition period as they adjust to the loss of their identity as a pregnant woman and accept that their fertility has been threatened. This period involves feelings of shock, distress, guilt, anxiety and depression.

Nurses play an extremely important role as the admission to hospital is a crucial point in which a woman ‘loses’ her baby. It may be appropriate to offer psychological support to women (Bennett et al, 2005), which involves being empathetic and respectful to each woman’s needs and individual experiences.

Women need information and explanations to relieve their anxiety, and the chance to talk about their feelings. When discharged, there may be a long period of coping with, and adjusting to, the loss. Referral to support groups such as The Miscarriage Association and The Ectopic Pregnancy Trust can be helpful.

**KEY REFERENCES**


*The full reference list for this unit is available in Portfolio Pages at nursingtimes.net*