

PENINSULAR CENTRE FOR REPRODUCTIVE MEDICINE

Miscarriage Information Leaflet

Introduction:

Miscarriage during the first three months of pregnancy is quite common. Some estimates are that it may occur in 10-20% of pregnancies, and even as many as 40% if very early cases of miscarriage occurring without women being aware that they are pregnant is taken into account. A variety of possible causes are recognised most of which are a matter of chance and have no major significance for the woman's future health and the subsequent likelihood of a successful pregnancy. These causes may include:

Failure of the early embryo to establish a viable genetic cell-line. The structures within the cells of early embryos that carry the genetic blueprint are called 'chromosomes'. Studies of chromosomes of early embryos created by fertility treatments show that whilst many embryos have a normal chromosomal pattern throughout all of their dividing cells, many have a mixture of abnormal and normal cells. At about 14 days after fertilisation some of the dividing cells may start to develop into the baby, whilst the others continue their development as the placenta and the sac of membranes around the baby. If enough cells with a normal chromosomal pattern do not develop at an early enough stage the pregnancy may come to a halt. This may occur at a very early stage before the sac or baby forms, sometimes just an empty sac develops, and sometimes the baby itself may have started to develop. If it is detected that the pregnancy has come to a halt before the bleeding of miscarriage begins the condition is called a '**missed abortion**'. It may occur as a matter of chance at any age, but is more common in those women who conceive at an older age and in certain rare conditions where the woman or her partner may herself carry a chromosomal disorder.

Disruption of the developing baby's blood supply. Oxygen and nutrients are supplied to the baby from very early in its development by the placenta. For a variety of reasons the placenta may form and attach at a portion of the womb where its further normal development is difficult. This may especially be the case if there are abnormalities inside the womb such as small fibroids (common fibrous or muscular lumps of the wall of the womb), or polyps. The blood supply may also be affected if any part of the placenta becomes detached and the resulting bleeding causes the pressure to build up between the remainder of the placenta and the wall of the womb.

It is quite common for bleeding to occur from a small portion of the placenta without causing major disruption. This condition is called a '**threatened abortion**'. Whilst minor bleeding from a threatened abortion continues it is considered advisable for the woman to rest at home or in hospital, but there is little else that can be done to affect whether it settles down or progresses. It is the mother's blood and not the baby's that is lost in these circumstances and, provided that it all resolves, is not likely to affect the further development of the baby.

The blood vessels of the early placenta are very tiny and there are some uncommon conditions that may cause the blood within them to clot and for them to become blocked. Women with a history of recurrent miscarriage are often tested for these conditions and, if found to be affected, may be prescribed drugs such as aspirin or heparin injections which 'thin' the blood.

Infections or other diseases of the mother. These are uncommon causes of miscarriage, but there are certain particular infections and diseases that may affect the pregnancy directly or make the mother generally unwell and lead to miscarriage.

It used to be the case that a minor operation called 'ERPC' would be recommended in most cases of missed abortion or miscarriage where the possibility existed that some of the baby's

or placental tissue remained in the womb. There is now, however, an increasing recognition that the risks of allowing nature to take its course may not be so great as was once thought and in many cases ERPC may be avoided. In such a situation bleeding may continue after miscarriage for up to ten days, but should not be heavy for more than a week. Admission to hospital together with an ERPC operation may still be necessary if:

- Bleeding is very heavy (persistent flooding or large clots);
- Bleeding continues for more than one week;
- There is severe abdominal pain;
- The woman develops a temperature;

It is advisable during this time to

- Use pads rather than internal tampons;
- Remain where urgent medical help could be provided if necessary (i.e. avoid long journeys or isolated situations without access to a telephone);
- Continue to perform home pregnancy testing weekly until tests have become negative (which should occur within two weeks. If not, the woman's family doctor should be contacted);

The ERPC Operation

ERPC is still one of the most common gynaecological operations to be performed. This is so that:

- the risk of severe haemorrhage is minimised;
- normality can be restored as soon as possible; and,
- retained tissues do not form a focus for infection;

It is an operation in which the woman is put to sleep with a general anaesthetic. The cervix (neck of the womb) is dilated (stretched slightly) to allow the inside of the womb to be cleared of blood clots, retained placental or other non-viable tissue. It generally takes only a few minutes and the woman should come around from the anaesthetic very shortly afterwards. Depending upon the time of day that the operation is performed, how she feels afterwards, how close she lives, and whether there is someone to pick her up, take her home and stay with her overnight it may be possible to be in and out of hospital the same day. If that is not possible, it usually just involves an overnight stay.

If the woman hopes to become pregnant again soon it is generally advised (on theoretical grounds and in the absence of supporting evidence) that further conception is avoided until after the first normal period. In most cases a period can be expected within four to eight weeks after miscarriage, but the first is often heavier or lighter than usual. The occurrence of a 'normal' period, however, suggests that the womb has returned to its normal state.

Potential complications:

Although ERPC is generally considered to be a very safe operation, all operations and general anaesthetics, even those performed with the utmost care, carry some degree of risk. Even minor complications are relatively uncommon after ERPC, whilst serious or life-threatening complications are very rare.

When they do occur, however, complications may include:

- Inability to remove all of the non-viable material from the womb. This may be unrecognised at the time of the operation. There may be persistent bleeding and/or the passage of fetal or

other tissue (some of which may on occasion be recognisable). If there is heavy bleeding or if it persists for more than a week after an ERPC the family doctor should be consulted. Sometimes the bleeding settles with a course of antibiotics, but sometimes a second or even more ERPC operations may be necessary;

- Post-operative infection of the womb - this may also lead to persistent bleeding or a smelly discharge as above, but there may be accompanying lower abdominal pain and possibly a temperature;
- Perforation by the instrument used to scrape the inside of the womb. In most cases this would heal naturally without a problem and may simply require a longer period after the operation in hospital for observation. Very occasionally there may be serious damage to internal organs requiring an immediate or urgent open operation on the abdomen and major surgery;
- Very occasionally and in spite of all precautions an ERPC may be performed on someone with an ongoing viable pregnancy. Such a situation may occur, for example, if there is an unrecognised very early twin pregnancy and only one of the pregnancies miscarries. It may be possible for a baby to continue to grow and develop normally if this happens. If a woman thinks she may still be pregnant because of symptoms or has not had a period within six weeks after an ERPC operation a pregnancy test may be advisable.

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