Fertility Design
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Complications of Assisted Conception

For most couples, assisted conception is without any major health problems. However, it is important that you are aware of the risks to you and your pregnancy should you undergo treatment with or without pregnancy. The most commonly seen complications are multiple pregnancy, ectopic pregnancy, Ovarian Hyper-stimulation Syndrome (OHSS) and infection or bleeding at the time of egg collection.

Multiple Pregnancy

Multiple pregnancies, mainly twins, can follow most types of fertility treatment, including IVF, ICSI, GIFT and ovulation stimulation, with or without IUI (intrauterine insemination).

Multiple pregnancy is associated with:
- The age of the woman producing the eggs
- The number of eggs she produces
- The number of embryos generated following IVF or ICSI
- The quality of those embryos
- The number of embryos transferred with IVF or eggs with GIFT
- Whether frozen embryos have been stored (a patient with enough embryos to store is more likely to become pregnant)
- The duration of infertility
- The number of previous failed treatment cycles
- Whether the patient has had a previous pregnancy or live birth

Triplet pregnancies carry greater risks than do twin pregnancies, which in turn are riskier than singletons. There is an increased risk of miscarriage, prematurity, intrauterine growth retardation, low birth weight and cerebral palsy as well as maternal complications, such as anemia, hypertension and caesarean section. In the rare situations where 3 conceptions implant, reduction to twins or a singleton may be discussed. There is a small risk (approximately 6%) that a pregnancy might end in miscarriage following pregnancy reduction.

Ectopic Pregnancy

IVF, GIFT, and to a lesser extent IUI, all carry a small risk of ectopic (outside the uterus) pregnancy. In IVF this means about 3%, and in GIFT 5%, are ectopic, although of course this means that at least 95% of pregnancies are in the correct place.

Our strategy to detect ectopic pregnancy as early as possible is to confirm pregnancy using a sensitive blood test for the pregnancy hormone ß-hCG, and then perform a vaginal ultrasound scan 3 weeks after the blood test. By then we can detect an intra-uterine pregnancy. If no pregnancy is detected on vaginal ultrasound but the ß-hCG remains high, an ectopic pregnancy is likely and further tests, including a repeat of the blood test or a laparoscopy, are wise. Usually, detecting an ectopic pregnancy this early means we can avoid the dangers of the pregnancy rupturing and we can also deal with it laparoscopically rather than use a full abdominal incision (laparotomy).

Ovarian Hyper-stimulation Syndrome (OHSS)

During your treatment cycle you will have a course of injections to stimulate the production of follicles. These injections are given in a carefully controlled way to try to produce more eggs than you would usually make. We have enormous experience using this treatment and pay great attention to matching dosage to response precisely and carefully.
Despite our efforts, some women are excessively sensitive to tiny doses of the hormones, and up to 5% may develop some degree of ovarian hyper-stimulation (OHSS). Although OHSS is unpleasant at the time, this condition is short-lived and, fortunately, recovery occurs within a few days to two weeks. OHSS involves temporary enlargement of the ovaries and accumulation of fluid inside the abdomen. It might be mild with only abdominal bloating or pain similar to period pains or in moderate cases, increased abdominal discomfort accompanied by nausea, vomiting and diarrhea. In severe cases, which are rare, the woman feels unwell, restless, nauseous and has abdominal swelling, flushing and palpitations. For such women admission to hospital may be necessary for monitoring and intravenous fluids.

During OHSS the ovaries enlarge excessively and may contain up to 30 - 40 follicles or more. After egg collection the ovaries remain large and fluid accumulates in the pelvis. The symptoms include abdominal discomfort and swelling, and sometimes thirst, nausea and sickness. Typically the onset is a few days after the IVF or GIFT procedure has been performed and the problem may last for a week or so before everything returns to normal. Ultrasound scans help us greatly. If we feel that you are in danger before the egg collection, we may advise that the injection that you do not have the final maturation injection (human chorionic gonadotrophin, hCG). This will prevent the development of OHSS. This is only done if there are very many follicles associated with a very high estrogen level. If egg collection proceeds but we suspect OHSS we may freeze all the embryos and cancel the fresh embryo transfer procedure since pregnancy frequently makes the symptoms of OHSS worse. In such cases, you would come back at a later date to have a frozen embryo transfer which is often very successful. Sometimes symptoms may persist when pregnancy occurs, however OHSS does not affect the success rates of IVF and does not cause miscarriage.

Egg Collection

There are small risks of internal hemorrhage and/or infection associated with ultrasound guided transvaginal egg collection as with many invasive procedures. We routinely administer an antibiotic to try and prevent any infection. You may experience abdominal discomfort/pain after the egg collection procedure, for which you can take pain killers.