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INFORMED CONSENT FOR IVF USING IN VITRO MATURATION OF OOCYTES

Purpose: The purpose of this procedure is to obtain immature eggs from the ovary and mature those eggs in the laboratory instead of inside a woman's body. Once matured, they will be fertilized and cultured in the laboratory as occurs in standard in vitro fertilization.

Background: In vitro fertilization commonly uses fertility medications to mature multiple oocytes (eggs). Initial efforts to mature eggs in the laboratory in the 1960s were largely unsuccessful. However, the use of fertility medications for ovarian stimulation has become extremely expensive. In addition, some women are extremely sensitive to the effects of these medications and, as a result, can develop a potentially life-threatening condition known as ovarian hyperstimulation syndrome (OHSS). Finally, there are some women who have cancers that are hormonally responsive and therefore must avoid the high hormone levels that result from ovarian stimulation.

In 1991, physicians in Korea reported the first pregnancy from eggs that were obtained from an ovary at the time of a cesarean section and then matured in the laboratory. In 1994, another pregnancy was established using immature eggs that were obtained from women with polycystic ovary syndrome. Recent improvements in culture conditions and techniques have led to a great improvement in the likelihood for in vitro matured eggs to produce viable embryos. Some programs are reporting pregnancy rates that are close to that seen using in vitro fertilization with fertility medications.

Procedure: An injection of hCG is given and the eggs are retrieved 36 hours later. The immature eggs are placed in a petri dish containing specialized media to help the eggs mature. Once the eggs are matured, they are injected with sperm - this is a fertilization technique known as ICSI. The injected eggs are checked for fertilization and then cultured for several additional days to allow the embryos to develop. This is the same technique that is used in standard in vitro fertilization.

During this time, the female is given hormones to prepare the uterine lining. Both estrogen and progesterone are given after the eggs have been retrieved. A few embryos are then selected and an embryo transfer is performed.

Risks:

Couples should read and be familiar with the standard IVF procedures of egg retrieval and embryo transfer and the possible risks associated with standard IVF.

Because the ovarian follicles are very small, there is a greater chance that eggs will not be obtained during a retrieval procedure that does not stimulate the ovary first with fertility medications. It is also possible that immature eggs may fail to mature in the laboratory and would therefore be incapable of being fertilized.

Since in vitro maturation is so new and since very few babies have been born as a result of this technique. It is not known whether the risks to children born are greater than would be expected in children born after standard IVF. Couples should assume that the risks are at least as great and possibly higher than that seen in standard IVF.

We acknowledge that we have read the above consent in its entirety and have had any questions answered completely and to our satisfaction.

We understand the risks, consequences, and potential benefits of in-vitro maturation.

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