Assessing the efficacy of microfluidic sperm selection in couples with low embryo utilisation rate

ACTRN12625001229460

Status RECRUITING
Sponsor The Royal Women's Hospital
Enrollment 92 participants

Plain Language Summary

When couples undergo IVF (in vitro fertilisation), one factor that affects success is the quality of the sperm used to fertilise the eggs. Poor sperm quality can lead to embryos that stop developing early. This study is testing a device called the ZYMOT, which selects sperm cells based on their natural swimming ability — a technique that may favour sperm with less DNA damage.

The study is specifically for couples who had a previous IVF cycle where fewer than 25% of fertilised eggs became usable embryos (a low utilisation rate), as this may indicate a sperm quality issue. In their next IVF cycle, the ZYMOT device will be used for sperm selection and outcomes compared to their previous cycle.

You may be eligible if you are a couple planning a further IVF cycle after a previous cycle with a low embryo utilisation rate (under 25%), and the female partner is under 40. Couples where fewer than 6 eggs were collected in the current cycle, where sperm are being surgically retrieved, or where donor sperm or eggs are being used are not eligible.

Key Eligibility Criteria

Inclusion (1)

- Couples who had a previous IVF cycle with utilisation rate of less than 25%, which is 1 standard deviation below our unit's average utilisation rate, and are planned for another IVF cycle, i.e study stimulation cycle.

Exclusion (5)

- Couples with less than 6 oocytes collected during the study stimulation cycle
- Female age > 40
- Severe azoospermia of less than 1 million/ml
- Patients who are planned for testicular sperm extraction
- Sperm or eggs donation

Locations (1 total)

The Royal Women's Hospital - Parkville, VIC, Australia