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1. Introduction

This report highlights a case involving a 33-year-old subfertile woman with low ovarian reserve who unexpectedly became clinically pregnant after her fourth cycle of fertility treatment at Cambridge IVF, a university-affiliated assisted reproduction unit in Cambridge, UK.

2. Case Report

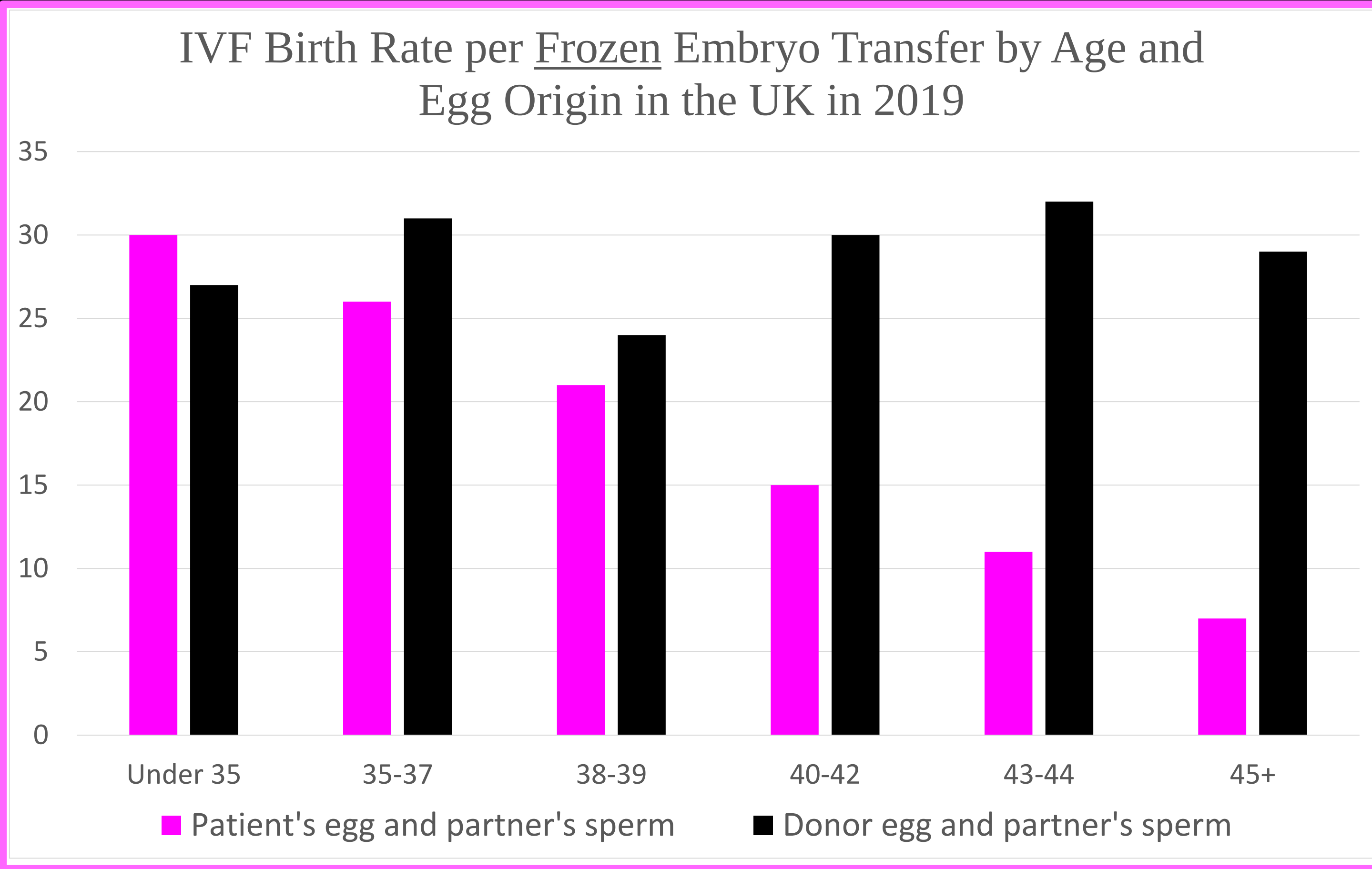
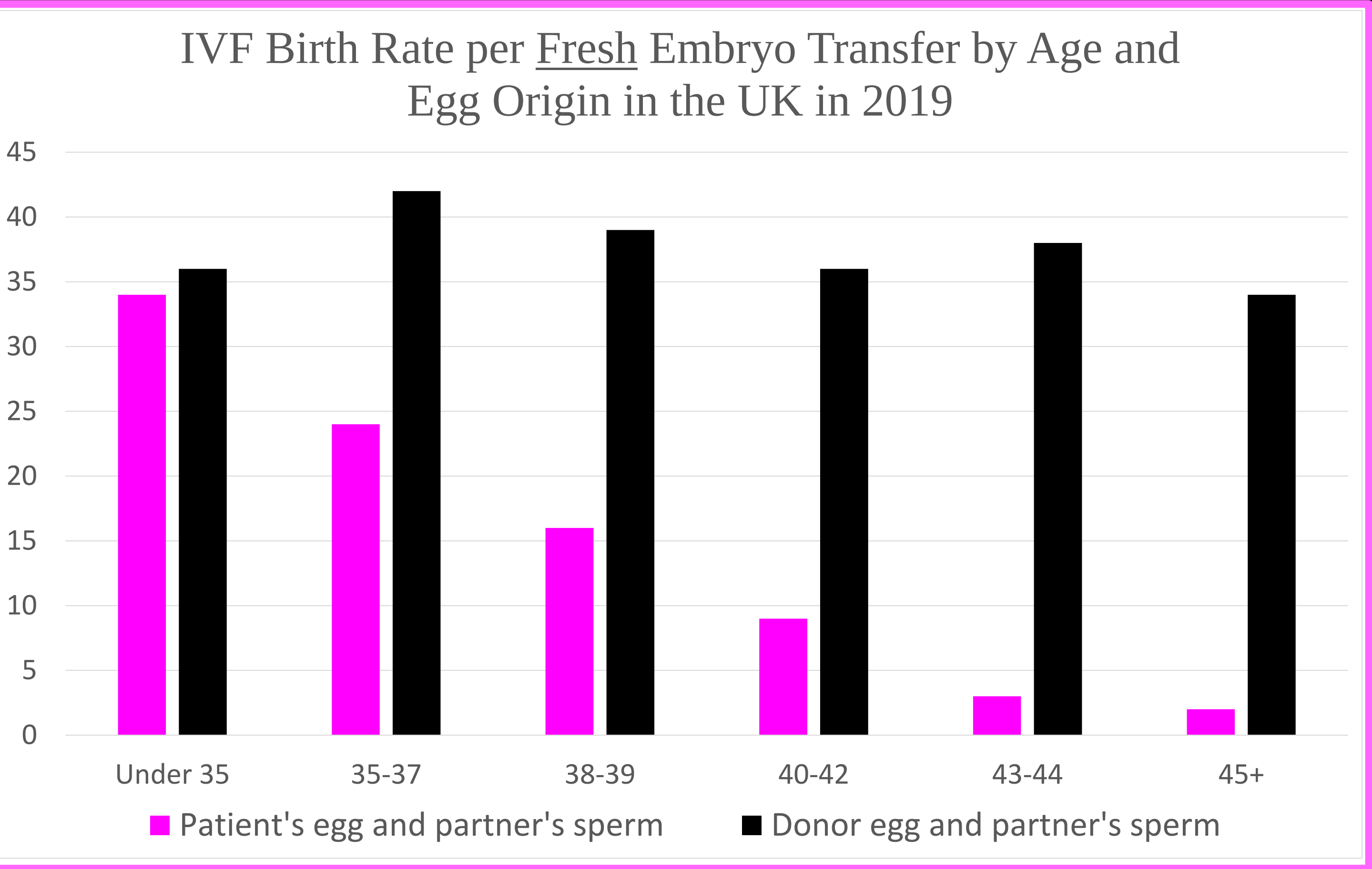
The woman was 33 years old and had been trying to conceive for seven years. The cause of subfertility was low ovarian reserve with an antral follicle count (AFC) of eight and an anti-Müllerian hormone (AMH) level of 2 pmol/L. This was combined with male factor subfertility due to teratospermia with 2% of normal morphology.

She had undergone one previous unsuccessful intrauterine insemination (IUI) procedure abroad before seeking treatment at Cambridge IVF. Her first IVF cycle was unsuccessful, resulting in the collection of two immature eggs. The second IVF cycle was converted to IUI and only one follicle was stimulated. However, in her third IVF cycle, three eggs were collected. Of these, one was fertilised and the resulting 3Bb embryo was transferred on day 5. A single ongoing viable pregnancy has since been detected clinically.

3. Discussion

Other fertility clinics had denied this woman access to IVF using her own eggs on the grounds that the likelihood of success was considered low. Instead, she had been offered treatment using donor eggs. Given the outcome of her fourth fertility treatment cycle, it may be the case that many young women with low ovarian reserve are being needlessly denied fertility treatment using their own eggs for fear that ovarian stimulation may be inadequate. However, as long as at least one good-grade embryo can be produced and transferred, these patients have as good a chance of becoming pregnant as anyone else of that age undergoing fertility treatment with their own eggs.

In 2021, the Human Fertilisation and Embryology Authority (HFEA) published data regarding the success rates of fertility treatments in the UK in 2019. The findings were encouraging particularly in the under 35s who used their own eggs and their partner's sperm; 34% of fresh embryos and 30% of frozen embryos transferred resulted in a live birth. From data released by the HFEA since 2018, it can be noted that success rates are rising most rapidly in the under 35s. Between 2016 and 2019, the live birth rate from fresh and frozen embryo transfer rose by 5% in this age bracket. This steady but noticeable yearly upward trend is in contrast to the same group of patients who instead used donor eggs and their partner's sperm. Success rates in this group have plateaued between 2016 and 2019. While opting to use donor eggs rather than their own eggs resulted in a significantly increased live birth rate in older age groups, there was no such benefit for the under 35s.



4. Conclusions

Birth rates per fresh or frozen embryo transfer in the under 35s using donor eggs were equal to, if not worse than those when using their own eggs for fertility treatment. Therefore, fertility treatment using the patient's own eggs ought still to be offered to young women with low ovarian reserve.

5. References

- HFEA (2021) Fertility treatment 2019: trends and figures
- HFEA (2020) Fertility treatment 2018: trends and figures
- HFEA (2019) Fertility treatment 2017: trends and figures
- HFEA (2018) Fertility treatment 2014-2016: trends and figures