

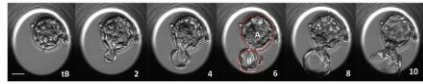
A potential novel AI-assisted embryo selection approach: the blastocyst Expansion Speed Assay (ESA)

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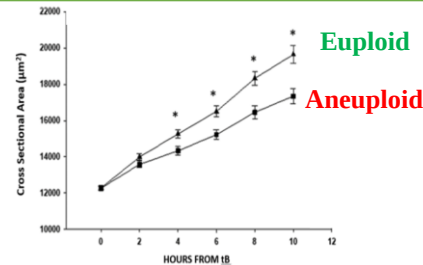
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What is already known...



Expansion rate is greater in euploid blastocysts that resulted in live births

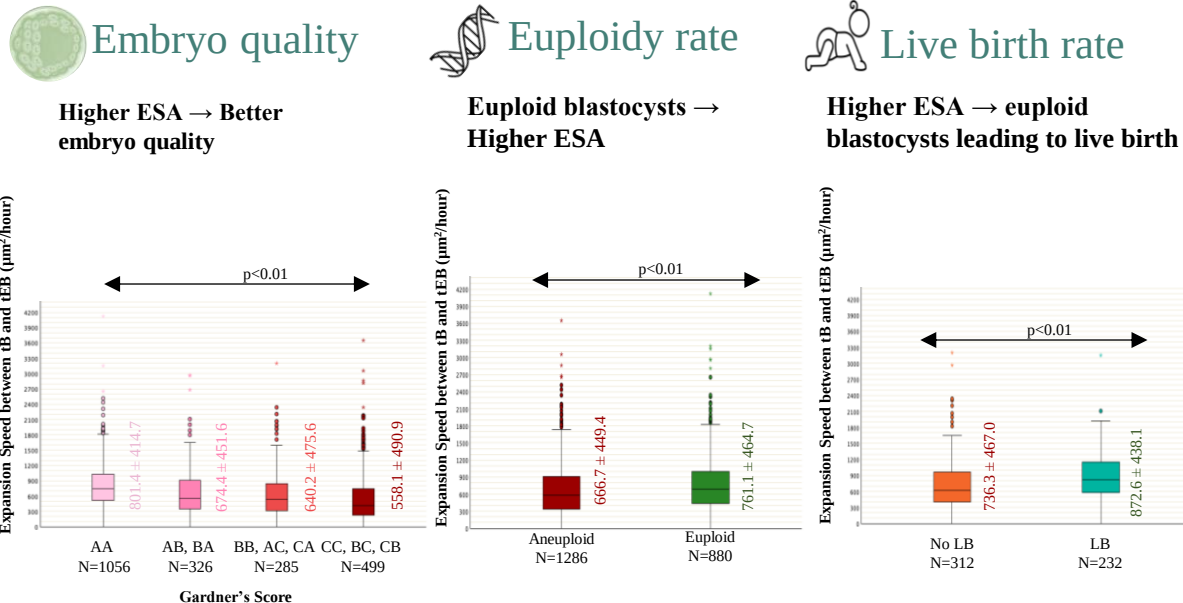


STUDY DESIGN

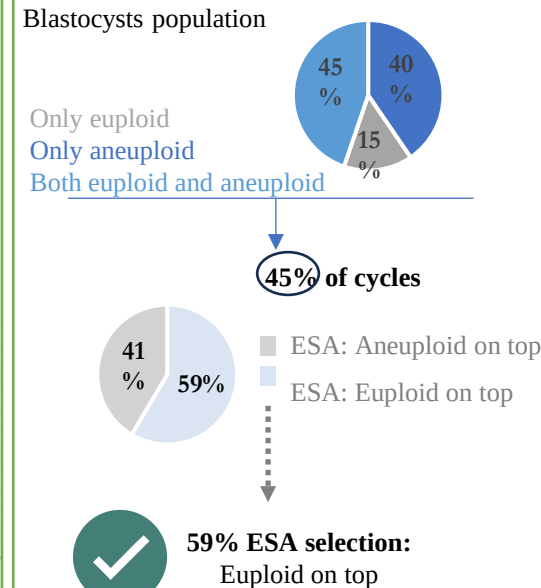
January 2013 – December 2022



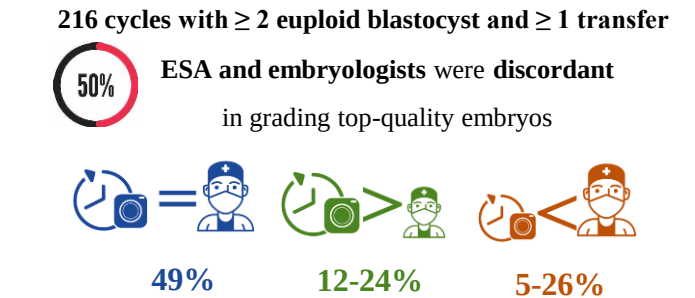
Association with embryo reproductive competence



ESA embryo selection



ESA vs Embryologist



Conclusions

- ❖ ESA significantly associates with euploidy rate and LBR
- ❖ Compared to embryologists, ESA matched their effectiveness in 49% of cases, performed better in 12–24%, and was less effective in 5–26%
- ❖ ESA showed discordance with the embryologists in prioritizing the euploid embryo for transfer in 50% of cases
- ❖ ESA is an automated, impartial, and easily applicable measurement deserving further evaluation.