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Growth Hormone Adjuvant trial for poor responders undergoing IVF

We were pleased to note that the registered randomised control trial from Cairo [1] showed some similar outcomes as our retrospective Australian trials, which were cited by the authors. In particular growth hormone (GH) adjuvant therapy 7.5 IU daily from Day 21 to Trigger (20 days) for poor responders in IVF, generated significantly more usable embryos; meaning embryos which were transferred in the fresh cycle plus embryos deemed suitable for cryopreservation; some of which were later transferred in a frozen embryo transfer (FET) cycle. However, their study failed to show any benefit in the main outcome measures, namely clinical pregnancy and live birth rates, including cumulative live birth rate. However, we find the study faulted, with unrecognised limitations, causing wrong conclusions to be drawn.

Firstly, we believe many of the embryos generated in their study were not given the best opportunity to implant and were wasted by the transfer of up to 3 embryos per fresh cycle. Although unstated we suspect those embryos selected for fresh transfer were the highest quality. However, we would suggest that their luteal phase management using Cyclogest 400 mg twice daily was suboptimal for the poor responder group. We believe that the poor responder group do best with a combination of HCG injections combined with micronized progesterone pessaries 400 mg three times daily [2,3], increasing the dosage further according to mid-luteal serum progesterone levels [4,5] which are measured in a defined mid-range for optimal pregnancy outcomes.

Furthermore, in recent years with the Cryotop Vitrification strategy, we have demonstrated that FET cycles generate higher implantation rates; firstly, using the remaining embryos cryopreserved after the best was transferred fresh. Secondly, this had led us to now cryopreserve the very best embryos for subsequent FET under HRT control [3]. In keeping with the current Australian trend our facility preferentially conducts single embryo transfers (SETs: 95%) and despite fresh transfers of the lesser quality (but suitable) embryos, our facility has pregnancy rates in the highest range of the top quartile for FET cycles according to the annual Australia and New Zealand Assisted Reproduction Database; ANZARD [6].

A further retrospective study from our facility is under review and shows that GH-generated embryos implant at a significantly higher rate in the FET cycles of women categorised as poor prognosis when matched with non-GH embryo FETs. The resultant pregnancies had a significantly higher live birth rate (22/78; 28.2% vs 7/78; 9.0%). This means the total productivity rate from a single oocyte retrieval is highest when more embryos reach cryopreservation, preferably those embryos being of the higher quality. The Cairo group should reconsider their study by applying a SET strategy to direct more high quality embryos to FET.

References

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Some anatomical explanations for mesh complications

Managing pain after synthetic mesh implants in pelvic surgery. Toozs-Hobson P, Cardozo L, Hillard T. Eur J Obstet Gynecol Reprod Biol. 2019 Jan 9;234:49-52. doi: 10.1016/j.ejogrb.2018.12.037. [Epub ahead of print] Review.

Dear Editor, I found this was an excellent summary of pain after mesh implantation and congratulate the editors on addressing a little visited subject. My comments are based on 30 years' experience in dealing with mesh insertions and complications.

Immediate onset of very severe pain

I agree this must be caused by some sort of direct injury to a nerve. I have only seen such severe pain in only 2 or 3 out of several

☆ Patient's consent for publication has been confirmed and signed.