

# Multiple conjoined oocytes in a patient with polycystic ovary syndrome undergoing in vitro fertilization

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## BACKGROUND and AIM

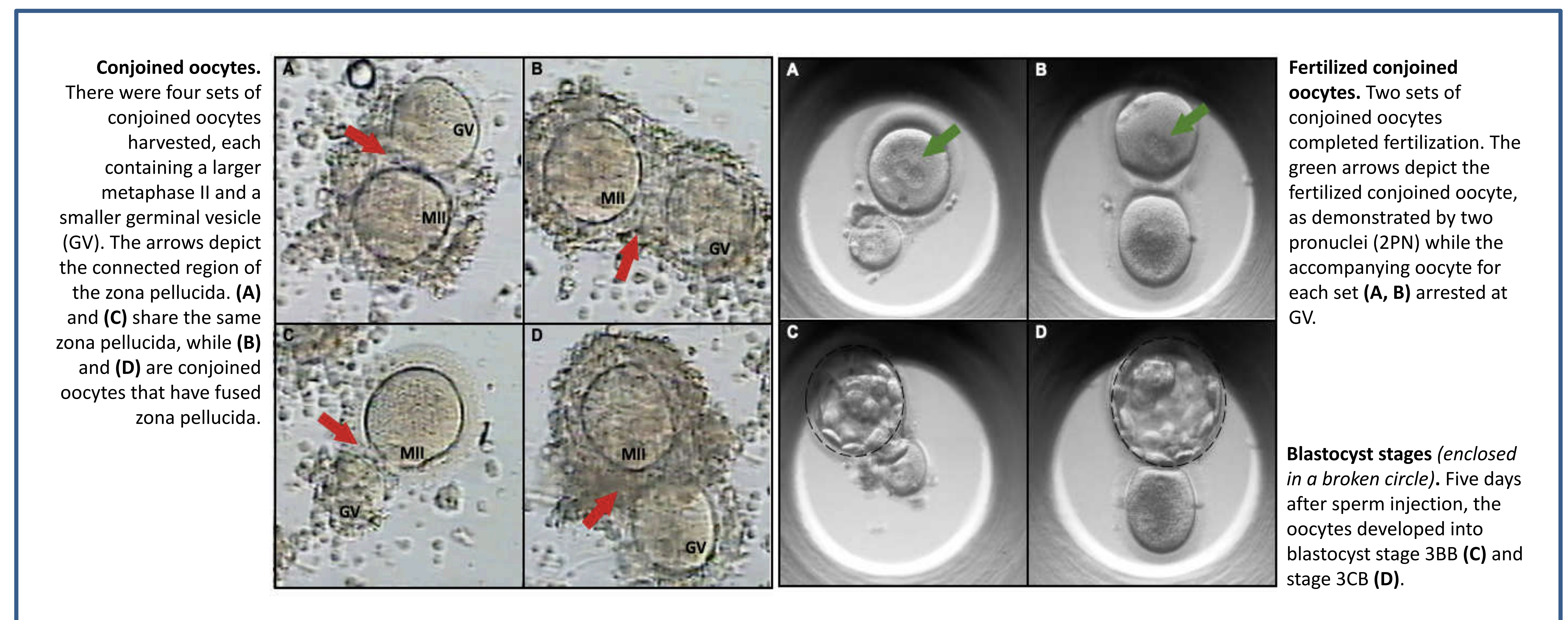
Conjoined oocytes are rarely found in reproductive age. Having only 12 reported cases in 2012, limited data exist among IVF centers on its potential significance. Theories to explain its existence are developmental accident and failure of meiotic division. Published studies indicate that ovarian stimulation in Assisted Reproductive Technology (ART) predisposes to its occurrence. Polycystic ovaries, on the other hand, give rise to follicles with different maturational states, thereby further contributing to the occurrence of conjoined oocytes. We present a case of multiple conjoined oocytes in an IVF facility.

## METHOD

A case report of a PCOS patient seen in an IVF clinic for ART.

## RESULTS

Ovarian stimulation was carried out using the antagonist protocol. Oocyte retrieval was scheduled 36 hours after GnRH agonist trigger, which resulted in the retrieval of 16 metaphase II (MII) and 5 germinal vesicles (GV). Four conjoined oocytes, each containing a pair of MII and GV oocytes, were likewise noted. Intracytoplasmic sperm injection of mature oocytes led to normal fertilization in 2 conjoined oocytes, which then developed to blastocyst stage (3BB and 3CB, respectively). The other two (2) conjoined oocytes remained immature and unfertilized. Preimplantation genetic screening on all surviving blastocysts showed euploid 3BB and aneuploid 3CB embryos arising from the conjoined oocytes apart from 2 other euploid embryos arising from uniovular oocytes. Upon frozen embryo transfer, the GV oocyte conjoined to the euploid XX blastocyst (3BB) was removed and transferred together with a euploid XY blastocyst (4BB), which eventually resulted to healthy term twins.



## CONCLUSION

Gonadotropin stimulation, coupled with PCOS, predisposes to the occurrence of conjoined oocytes. Although a result of developmental accident, conjoined oocytes still (has) have the potential to develop into a genetically normal embryos, hence, into a normal pregnancy. To our knowledge, this reports the third case of conjoined oocyte that resulted to a live birth, and probably the highest number of conjoined oocytes retrieved in a single IVF cycle.

## ACKNOWLEDGEMENT

Credits to Mr. Arnel Gamilde, RMT for the guidance and contribution in the completion of this paper.