

Anogenital distance as a potential phenotype to select donors for *in vitro* embryo production

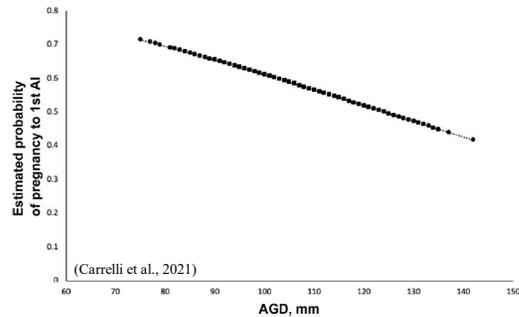
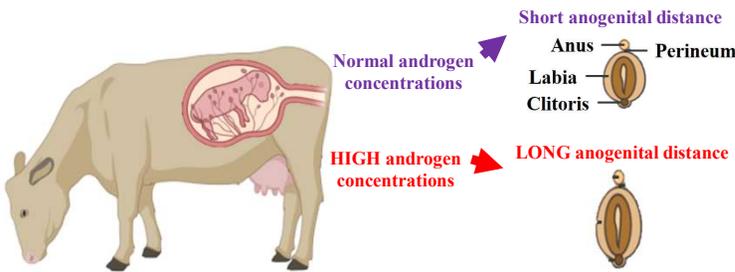
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INTRODUCTION

Fetus (prenatal) life

Calve, heifer, cow life



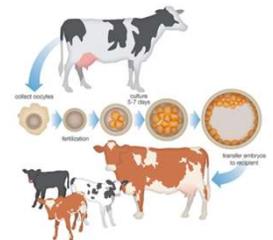
This study aimed to characterize the association of anogenital distance with *in vitro* embryo production traits in *Bos indicus* cattle

MATERIAL AND METHODS

n = 552 *Bos indicus* commercial oocytes donors for *in vitro* embryo production

- ✓ Six herds in Brazil – grazing systems with corn silage and concentrate as supplement
- ✓ Records of each donor *in vitro* embryo production from 2010 to 2022 → 4,785 harvest events: number of recovered oocytes, viable oocytes, produced embryos per donor, and blastocyst rate
- ✓ Analysis: Mixed Procedure (SAS). Statistical difference $P < 0.05$, tendency $0.05 > P < 0.12$
- ✓ Approved by Animal Care and Use Committee (protocol #010/2022)

In vitro embryo production steps



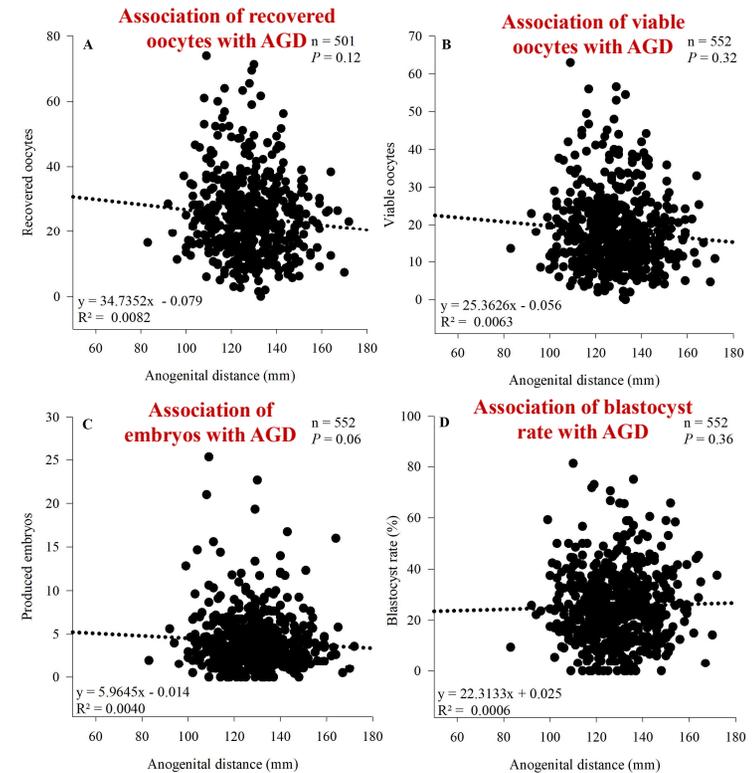
Anogenital distance (AGD) measurement



CONCLUSION

- ✓ Donors with shorter anogenital tended to have greater number of recovered oocytes ($P = 0.1$) and to produce more embryos ($P = 0.06$) than donors with longer AGD
- ✓ A limitation of our study was the use of oocyte and embryo data collected retrospectively and compared to the current anogenital distance of the donor
- ✓ Further studies should be performed to validate these results and to better understand the association between anogenital distance and *in vitro* embryo production

RESULTS



ACKNOWLEDGMENT

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