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Transcervical embryo recovery on Crioula Lanada sheep: preliminary results

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Unscientific breeding practices diluted the genetic resources of various Brazilian sheep breeds limiting their genetic variability and resulting in the loss of important genes with potential for future use. The Crioula Lanada is one of the few sheep breeds brought to southern Brazil by European settlers that can be used as a basis for genetic material preservation, since it remains without genetic contamination. Along with sperm cryopreservation, embryo cryopreservation is fundamental to maintain racial purity. However, the surgical embryo collection method traditionally used in ewes often results in internal adhesions in the donors' reproductive tract that compromise their subsequent reproductive life. Thus, the development of an embryo recovery method that does not damage the reproductive system of the donors is of interest. Considering the scarce information available about the Crioula Lanada breed and the great variation in technical efficiency among breeds, this study evaluated a method of transcervical embryo recovery in Crioula Lanada ewes. The estrus cycle of ten adult ewes with body condition of 3.5 was synchronized using Eazi-Breed CIDR® (Pfizer, New Zealand) associated with superovulatory treatment with 200 mg of FSHp (Folltropin®, Vetrepharm Inc., Canada). Ewes were inseminated by laparoscopy and embryos were recovered after six days. Four ewes were treated with misoprostol (Prostokos®, Infan, Brazil) and the embryos were recovered by the transcervical method (Gusmão, *Arq. Bras. Med. Vet. Zootec.* 61, 313, 2009). In one female, the cervix could not be exposed due to adhesions caused by previous interventions and embryo recovery was not done. In the remaining ewes, the uterus was washed with ten infusions of 20 ml PBS in each uterus horn. However, only two of them produced structures. The remaining ewes were submitted to conventional surgical embryo recovery, but collections were not done in three of them: one due to the presence of adhesions; and two that did not respond to the superovulation protocol. Seven embryos were recovered by the transcervical method and eighteen were recovered by the surgical method. Considering the average of viable embryos (grade 1-3, IETS) recovered by the transcervical (2.3) and the surgical (2.8) methods, we conclude that Crioula Lanada ewes may be submitted to both embryo recovery techniques with acceptable efficiency. Further studies should be conducted to validate the results of this pilot study and to produce embryos for storage in the National Bank of Animal Germoplasm.