



Risk of transmission of caprine arthritis - encephalitis virus (CAEV) through embryos transfer from naturally infected donors

Risco de transmissão o vírus da artrite encefalite caprina (CAEV) através de embriões oriundos de cabras sorologicamente positivas

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The caprine arthritis encephalitis is an important viral and most important infectious disease in dairy goats. The infection causes several economic losses. The high prevalence CAEV infection in countries that export goat genetics generated a great concern, since the international trade might introduce the virus in different countries by embryo transfer spreading the disease. Thus, the aim of the study was to evaluate the risk of caprine arthritis encephalitis virus (CAEV) transmission by in vivo embryos from naturally infected donors. Nine CAEV-AGID positive donors and 62 nested-PCR CAEV-negative recipients were selected for the study. After the superovulation protocol, 23 transferred embryos were collected from the donors by transcervical method. After that, the embryos were washed ten times using PBS medium and two using in trypsin. Subsequently transferred to 23 recipients does also by transcervical method. Transretal ultrasonography carried out 45 days after embryo transfer for the pregnancy identification. During the pregnancy (five months) and for four months postpartum, blood samples were collected from the recipients does to CAEV identification by nested PCR test. The tests were also performed by the same method on the newborn animals during the first four months of life. The ultrasonography revealed 34.8 % pregnancy rate (8/23). The transcervical embryos transferred is a new method in small ruminants and a good option for that, once it shows easier implementation and speed. Throughout the period of investigation (five months of gestation plus four months of postpartum period) for recipients and newborn animals, no proviral DNA was identified in blood samples. Previous study from our group showed embryos from positive donors from transcervical recovery method in goats are safety. Thus, results of the present study showed no transmission of CAEV by embryos originated from CAEV positive donors by embryos from transcervical method washing treatment.

Keywords: embryo transfer, transcervical recovery embryos, goats, biotechnology.

Palavras-chave: *transferência de embrião, recuperação transcervical de embriões, caprino, biotecnologia.*

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