



A261 Supporting Biotechnologies

Identification of CAE virus by qPCR in embryos recovered from seropositive dairy goats

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The aim of the present study was to identify by qPCR the presence of the CAEV (caprine arthritis-encephalitis virus) in goat embryos produced in vivo following embryo washes recommended by the IETS, 1998 (Stringfellow, DA, Seidel, D.A., Manual International Embryo Transfer Society). Embryos were flushed according to Fonseca, J.F. et al., 2012 (In press) from ten (n=10) dairy goats aged 4 and 5 years naturally infected and positive for CAE virus by AGID test. Subsequently embryos with intact ZP (morule and initial blastocysts) were divided into two groups; the washed embryos (n = 44) and unwashed embryos (n = 44), totaling 44 pools. The RNA of two embryos pooled from the same flushing was extracted using the MinElute Virus Spin Kit® (Qiagen, Düsseldorf, USA). After that the material was subjected to Real Time PCR, the positive control was goat synovial membrane. All samples were negative confirming the results reported by Ahmad et al., 2008 (Theriogenology, 69, 408-415) where the presence of CAE virus in goat embryos produced in vivo was not detected by conventional PCR. The present study shows that embryos derived from CAE-positive animals are free of the pathogen independently of washing. However, considering embryo commercialization rules the recommended washes must be maintained. Further studies are being carried out to determine the risk of transmission of pathogens in naturally infected animals, in order to achieve the international trade of embryos from CAE-positive goats.