Molecular characterization of *Corynebacterium pseudotuberculosis* isolated from goats using ERIC-PCR

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**ABSTRACT.** *Corynebacterium pseudotuberculosis*, the infectious agent of caseous lymphadenitis (CLA), is responsible for substantial economic losses in goat and sheep production. Molecular characterization of *C. pseudotuberculosis* isolates by enterobacterial repetitive intergenic consensus (ERIC)-PCR has shown promising results in genotyping strains isolated from sheep with CLA. We evaluated the genetic diversity of *C. pseudotuberculosis* isolates collected from the Sertão...
region of the Pernambuco (PE) State, Brazil, and investigated the potential of ERIC-PCR as a tool for the molecular typing of strains of *C. pseudotuberculosis* isolated from goats. Thirty-two *C. pseudotuberculosis* strains isolated from goats in the municipalities of Floresta and Ibiririm, PE, *C. pseudotuberculosis* type strain ATCC 19410, the 1002 vaccine strain, and a field isolate of *Rhodococcus equi* were fingerprinted using the primers ERIC-1R and ERIC-2 and the primer pair ERIC-1R+ERIC-2. Using 100% similarity as the cutoff, 8, 10, and 7 genotypes were obtained with ERIC-1-PCR, ERIC-2-PCR, and ERIC-1+2-PCR, respectively. The Hunter-Gaston discriminatory index calculated for the ERIC-1-PCR was 0.75. The index for the ERIC-2-PCR was 0.88, and the index for the ERIC-1+2-PCR was 0.79. Among goat isolates of *C. pseudotuberculosis*, three, two and four genotypes (found by ERIC-1-PCR, ERIC-2-PCR, and ERIC-1+2-PCR, respectively) had been previously described among sheep isolates from Minas Gerais State, Brazil. These results showed that ERIC-PCR has good discriminatory power and typeability, making it a useful tool for discrimination among *C. pseudotuberculosis* isolates from goats.

**Key words:** *Corynebacterium pseudotuberculosis*; ERIC-PCR; Caseous lymphadenitis; Goats