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ISOLATION AND CHARACTERISATION OF A NITRATE REDUCTASE POSITIVE *Corynebacterium pseudotuberculosis* STRAIN FROM CASEOUS LYMPHADENITIS IN A DROMEDARY CAMEL (*Camelus dromedarius*) FROM INDIA

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ABSTRACT

The present study reports isolation of a nitrate reductase positive strain of *Corynebacterium pseudotuberculosis* from caseous lymphadenitis in a dromedary camel housed in an organised dromedary camel farm located at Bikaner, Rajasthan, India. The bacteria were identified on the basis of biochemical properties as well as PCR based amplification of 16s rDNA, rpoB, plD and narG genes. Phylogenetic analysis using partial sequences of 16s rDNA and rpoB genes revealed its resemblance to equine strains. It was hypothesised that the organism might have originated from the equine herd located in the vicinity of the camel farm. The isolated strain was resistant to penicillin, oxacillin, cloxacillin, amoxicillin/ sulbactam and methicillin but sensitive to amikacin, cefoxitin, ceftriaxone, chloramphenicol, ciprofloxacin, doxycycline hydrochloride, erythromycin, kanamycin, lincomycin, rifampicin, streptomycin, teicoplanin, tetracycline, trimethoprim and vancomycin. The present report suggests that nitrate reductase positive *Corynebacterium pseudotuberculosis* originating from equine or other animal species may cause caseous lymphadenitis in dromedary camel.

Key words: Antimicrobial-resistance, camel, caseous-lymphadenitis, *Corynebacterium pseudotuberculosis,* nitrate reductase