Prevalence, Associated Risk Factors, and Bacterial Pathogens in Dairy Camels: A Review

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Abstract: Camels play a vital role as multipurpose animals, providing milk meat and serving as a means of transportation. They serve as a financial reserve for pastoralists and hold significant cultural and social value. Camel milk, known for its exceptional nutritional properties, is considered a valuable substitute for human milk. However, udder infections, particularly mastitis, pose significant challenges to camel farming. Clinical and subclinical mastitis can lead to substantial economic losses. Mastitis, especially the subclinical form, is a persistent and prevalent condition affecting milk hygiene and quality in dairy camels. This review offers insights into the prevalence and risk factors associated with subclinical mastitis in camels. The prevalence of subclinical mastitis in dairy camels was found to range from 9.28% to 87.78%. Major pathogens responsible for camel mastitis include Staphylococcus aureus, Coagulase-negative Staphylococcus, Streptococcus agalactiae, Streptococcus dysgalactiae, Escherichia coli, Micrococcus spp, Pasteurella haemolytica and Corynebacterium spp. The study outlines key risk factors contributing to camel mastitis, emphasizing factors such as severe tick infestation, age, stage of lactation, parity, body condition score, skin lesion on the teats or udders, anti-suckling devices, previous history of the udder, conformation of the udder, breed, unhygienic milking practices, production system, amongst others have been reported to be important in the prevalence of subclinical mastitis. This comprehensive overview provides valuable insights into the multifaceted aspects of camel mastitis, encompassing prevalent bacterial pathogens and diverse risk factors. The findings underscore the importance of holistic management practices, emphasizing hygiene, health monitoring, and targeted interventions to ensure the well-being and productivity of camels in various agro-pastoral contexts.

Keywords: bacterial pathogens, camel, mastitis, risk factors

Conference Title: ICADS 2024: International Conference on Animal and Dairy Sciences

Conference Location: Paris, France Conference Dates: January 18-19, 2024