Histophilus somni isolation from an Angus calf fatal septicemia in Parana State-Brazil.

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Histophilus somni previously recognized as Heamophilus somnus is the infectious bacteria agent of septicemia, bronchopneumonia thrombotic meningoencephalitis as well sporadic reproductive tract infections in bovines. Affecting mainly young calves, predisponent factors like stress, cold weather and weaning contribute to the development of such clinical conditions. Their virulence characteristics include adherence and endothelial cell apoptosis, endotoxins, phase variations, tranferrin and bovine IgG₂ immunoglobulin-binding protein and biofilm formation. A recent introduction in a farm near of Curitiba of a bull with respiratory problems seemed to be the main cause of the same fatal disease affecting two calves with twenty and thirty-three days of age soon after. At necropsy of one of them in a Veterinary Hospital at Federal University of Parana State, showed a neutrophilic broncho interstitial pneumonia and diffuse fibrinosuppurative pericarditis associated with intralesions bacterial colonies. The bacteriological diagnostic was done from pericardic secretions and lung tissue fragment. These specimens were streaked on the surface of Blood Agar, McConkey Agar and in BHI Broth, being incubated at 37°C during 24-48 hours. Simultaneously were done microscopic slides stained by Gram method, revealing a profuse infiltrated of polimorphonuclear cells and Gram positive coccobacillary. After 24 hours, Petri plates with small colonies presenting scarce growth were reincubated in a CO₂ atmosphere with a good result. Inicially a Pasteurella multocida strain was suspected to be the aetiologic agent of this disease but haemolytic action together with a superficial colonial adherence and complementary biochemical tests discounted this possibility. Because of in vitro bacterial fragility, daily cultivations was necessary in order to keep this strain alive and obtain the final identification. This fragility characteristic of this strain was remarkable to suspect of Haemohilus genus but at the time the independence of X and V factor classified it as the Histophilus somni species. This is a rare isolation with complete microbiological identification of this strain in Parana State-Brazil.