

TÍTULO: *Yersinia enterocolitica* causing mortality in non-human primates in Parana State.

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Yersinia enterocolitica is considered an enteropathogen belonging to *Enterobacteriaceae* Family causing human and animal gastroenteritis. In humans, this bacteria is associated with genetic hemochromatosis disease characterized by blood iron overload or even in hepatic cirrhosis. Siderophores play an important role causing enteric or hepatic disease and is a common find co-infection with virus and intestinal parasites also. Opportunistic infections in animals are frequently associated to stressed factors such as cold weather, starvation and desnutrition. Because of it, wild animals in captive facilities in zoologic parks commonly have shown septicemic yersiniosis outbreaks caused by *Y. enterocolitica* and less frequently, *Y. pseudotuberculosis*. In 2018 in Apucarana City-PR, three free living monkeys belonging to species *Callitrix* sp. were found dead in a forest near of this city and Yellow Fever was suspected. In order to confirm the clinical suspicious all the animals were sent to Veterinary Hospital of UFPR in Curitiba City. At necropsy, the gross lesions were confined in liver tissue showing multiple purulent abscess and purulent enteritis in the large intestine. The microbiology procedures revealed, at MacConkey Agar, profuse lactose negative colonies in pure culture after 48 hours at 37⁰C. Biochemical complementary tests followed by a rapid serologic agglutination identified the bacterium as *Yersinia enterocolitica*. After this cases no more deaths was seen. This was the first Yersiniosis outbreak by *Y. enterocolitica* affecting this non-human primates in Paraná State in free living conditions. Particularly, sanitary actions could be implemented in zoo parks in order to prevent outbreaks of this kind of stressed animals by monitoring samples feces taken from apparently healthy reservoir using cold enrichment techniques to isolate *Yersinia* spp.

Key words: Yersiniosis outbreaks; *Yersinia enterocolitica*; non-human primates.