

Title: Leukocyte evaluation in parrots (*Amazona aestiva*) infected with mycoplasmas (Mollicutes)

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Abstract:

Mycoplasmas are bacteria belong to the class Mollicutes. These bacteria are responsible for chronic respiratory diseases in birds. One time the bird infected by mycoplasmas will bring therefore not only reduced productivity, as well as the difficulty in flight. Leukocyte evaluation aims to assess the animal health profile, understanding that drastic changes in total leukocyte number as its cell morphology. These changes are linked to some kind of pathology, allowing, that with the use of the leukocyte count can be accessed to the immune response of animals. This study aimed to determine the leukocyte values of parrots infected with Mycoplasma. Blood and cloacal samples were collected from 31 birds of the Psittaciformes Order. The animals were obtained from CETAS in Vitória da Conquista. Leukocyte analysis and Polymerase Chain Reaction (PCR) for identification of mycoplasma were performed. Ten birds were positives for mycoplasma (IG) and 21 were negative (CT). In the WBC analysis, the animals had a mean and standard deviation of 8.867 ± 2.316 (IG) and 8.880 ± 1.769 (CT); monocytes: $551,9 \pm 407,6$ (IG) and $359,8 \pm 281,2$ (CT); heterophils: 4.634 ± 1.534 (IG) and 4.085 ± 1.305 (CT); lymphocytes: 3.444 ± 1.363 (IG) and 3.199 ± 1.795 (CT); and eosinophils: $153,2 \pm 182,6$ (IG) $156,0 \pm 175,8$ (CT). Parrots are characterized by living in flocks, however, if a member becomes sick, it can be expelled. Thus, the animals have the ability to mask the clinical signs, not being expelled. This way, It is essential the use of techniques more sensitive to identify the pathogens. The PCR has the capability of identifying the microorganisms that are present in the animal, even if it develops an sub-clinical disease or if it is the beginning of an infection. Leukocyte changes are present during the demonstration of a clinical conditional. The animals studied in this study were clinically healthy and could not be identified leukocyte changes.

Keywords: mycoplasma, psittaciformes, WBC.

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