Proceedings of the 34th World Small Animal Veterinary Congress
WSAVA 2009
São Paulo, Brazil - 2009

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PANCYTOPENIA DUE TO ACUTE MYELOID LEUKEMIA: AVOIDING MISDIAGNOSIS - 627

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The diagnosis of canine pancytopenia may represent a challenge for the veterinarian. Bone marrow evaluation is usually essential in order to get the correct diagnosis. Canine ehrlichiosis is endemic in Brazil, therefore veterinarians may tend to consider it as a major cause for canine pancytopenia. The aim of this study is to affirm acute myeloid leukemia as one of the causes of canine pancytopenia, confirming the bone marrow cytological examination as an important tool to avoid hematological misdiagnosis. Two dogs were presented to their referred veterinarians for evalua-
tion of weakness and inappetence. Dog 1 was an one-year-old female mixed-breed dog and dog 2 was a 6-year-old female Poodle. Hematologic profiles of both animals revealed moderate to severe pancytopenia. The dogs were suspected of presenting bone marrow aplasia due to chronic canine ehrlichiosis, and the treatment with Doxyciclin was started. Because no improvement in the animals’ health conditions were noticed, the Veterinary Hematology Private Practice was contacted to perform a bone marrow cytological evaluation. Bone marrow aspirate was collected from the right humerus under general anesthesia. Both dogs presented hypercellular bone marrow, with a predominance of myeloid blasts with differentiation, characterizing an acute myeloid leukemia of the type M2 (AML-M2). The treatment with Doxyciclin was discontinued in both cases, and a support treatment was started. Both dogs died within days to weeks after the diagnosis, due to the severity of the malignant disease. Acute myeloid leukemia is usually suspected in cases which present leukocytosis accompanied by atypical and immature cells in the peripheral blood. Although, sometimes it can be presented as a pancytopenia with no atypical cells in the circulation. Moreover, even though chronic canine ehrlichiosis is an important cause of pancytopenia in Brazil, one must always suspect other causes of this laboratory finding and try to confirm the diagnosis. It is fundamental to recognize the bone marrow cytological evaluation as an essential tool for the diagnosis of canine pancytopenia, in order to avoid misdiagnosis of this hematological condition. Other tests that may also play an important role in the diagnosis of pancytopenia include infectious diseases serology and molecular biology tests, as well as radiographic, ultrasonographic and histopathologic tests.