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A retrospective study of aplastic pancytopenia in the dog: 9 cases (1996-2003).

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Source

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Abstract

BACKGROUND:

Aplastic pancytopenia is defined by the presence of pancytopenia in blood and a hypocellular bone marrow with the hematopoietic space replaced by adipose tissue. Several causes of acquired aplastic pancytopenia are known; however, in some cases, an underlying cause is never determined.

OBJECTIVE:

The objective of this retrospective study was to identify the incidence, potential causes, and outcome of aplastic pancytopenia in dogs.

METHODS:

Bone marrow cytologic and core biopsy reports were reviewed to identify dogs diagnosed with aplastic pancytopenia between July 1, 1996 and June 30, 2003. Four-hundred eighty-six bone marrow reports that included aspirate and core biopsy evaluations were reviewed.

Signalment, treatment given, previous and current disease conditions, clinical signs of disease, clinical laboratory data, therapy, response to therapy, and survival time were recorded.

RESULTS:

Nine dogs (1.85% of bone marrow samples reviewed) met the criteria for inclusion. Two dogs (22%) had associated diseases that included monocytic ehrlichiosis and Sertoli cell tumor. In 7 dogs (78%), the cause of aplastic pancytopenia could not be definitively determined, although an idiosyncratic drug reaction to griseofulvin was suspected in 1 of the dogs. The median age of dogs diagnosed with aplastic pancytopenia was 3.2 years, and apparent breed or sex predilection was not identified. Median HCT, total WBC count, and platelet count on the day of presentation were 21.8%, $1.0 \times 10^3/\text{microL}$, and $2.0 \times 10^3/\text{microL}$, respectively. Six of 9 dogs diagnosed with aplastic pancytopenia died or were euthanized within 21 days. Two dogs had complete hematologic recovery. One dog was living 3 years after diagnosis, but hematologic recovery was never documented.

CONCLUSIONS:

Aplastic pancytopenia is diagnosed infrequently and idiopathic aplastic pancytopenia may account for up to 67% or more of canine cases. Although the prognosis is guarded, some dogs with aplastic pancytopenia recover.

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