

# Characteristics of Granulocytic Anaplasmosis in Dogs

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## In the Literature

Chirek A, Silaghi C, Pfister K, Kohn B. Granulocytic anaplasmosis in 63 dogs: clinical signs, laboratory results, therapy, and course of disease. *J Small Anim Pract.* 2018;59(2):112-120.

## FROM THE PAGE ...

This study examined medical records of 974 dogs from Germany with clinical signs suggestive of granulocytic anaplasmosis (GA). Dogs were included in the study if they tested positive for GA via real-time PCR with no comorbidities that could potentially confuse whether signs and laboratory test results were attributable to *Anaplasma phagocytophilum*. Sixty-three dogs met the study criteria and were included in the analysis.

Clinical signs in affected dogs included lethargy and reduced activity, fever, lameness, and pain on joint palpation. Of importance, 13% of dogs had hemorrhage consisting of petechiae, gingival bleeding, epistaxis, pulmonary or vaginal hemorrhage, fresh fecal blood, or hematoma; these signs were often associated with thrombocytopenia. Splenomegaly and hepatomegaly were often observed. CBC findings most consistently included thrombocytopenia; 44% of dogs tested had platelet-bound antibodies. Synovial fluid of dogs with suspected polyarthritis was cellular and occasionally tested positive for GA via real-time PCR. Doxycycline was highly effective in mitigating clinical signs when used, although hematologic abnormalities took several weeks to improve. Polyarthritis and immune-mediated hemolytic anemia were indicators for treatment with steroids or cyclosporine.

The study did not include a control group; thus, it cannot be determined which of the findings might also occur in dogs without GA—and at what frequency—from the same region or with the same signalment. The study authors acknowledged that chronic

infection or occult infection in dogs with less notable clinical signs was likely overlooked but indicated that dogs are more likely to be infected in particular geographic regions and during seasons of peak tick activity. Creating a clinical picture of the dog with GA can help improve diagnostic efficiency and ensure that dogs at risk receive appropriate and timely care.

## ... TO YOUR PATIENTS

Key pearls to put into practice:

- 1 Obtaining patient travel history, which should include locations recently visited, is crucial, as risk differs across geographic regions and in forests or environments where ticks would quest. Of note, tick-borne GA is seasonal.
- 2 Screening should include physical examination and complete minimum database (CBC, serum chemistry profile, urinalysis) augmented with PCR testing of blood. PCR-negative results should be rechecked in a few days.
- 3 Although most dogs with GA respond well to doxycycline, long-term sequelae can include immune-mediated disease. Steroids should be considered when indicated.