

VETERINARY TECHNICAL DATASHEET

Glanzmann Thrombasthenia Type I, (GT); mutation originally found in mixed breed dogs



Mutation Found In :Mixed breed dogs

Disorder Type

- Blood

Disease Severity

- Moderate/severe

Background

Glanzmann thrombasthenia (GT) type I is a hereditary bleeding disorder. Genetic causes for the disease have been identified in the Great Pyrenees, the Otterhound, and in Mixed Breed dogs. GT is characterized by poor blood platelet aggregation leading to bleeding issues.

Key Signs

- Nose bleeds
- Bleeding from the gums
- Prolonged bleeding from trauma or surgery

Clinical Description

Glanzmann thrombasthenia causes susceptibility to bleeding due to poor blood platelet aggregation. This is caused by a deficiency in a platelet membrane glycoprotein. Typical clinical signs include mucosal bleeding, such as nose bleeds, bleeding from the gums, and intestinal bleeding, as well as blood in the urine. Abdominal blood spots under the skin or blood spots in the mouth may also be observed. More severe, prolonged bleeding may occur due to a trauma or surgery. Glanzmann thrombasthenia can be suspected based on breed and typical clinical signs. In laboratory testing, the platelet count and clotting times are normal but the capillary bleeding time is prolonged. Please note bleeding tendency may be caused by a number of other causes affecting the clotting system. These causes include immune-mediated thrombocytopenia, anticoagulant rodenticide intoxications, disseminated intravascular coagulation, other hereditary bleeding disorders, and the use of certain drugs.

Mode of Inheritance

- autosomal recessive

Gene Name

- ITGA2B

Next Steps

There is no curative treatment for the disease. Conservative treatment consists of prevention of bleeding and stopping active bleeding. The disorder must be taken into consideration when planning surgical intervention. Always inform your veterinarian about the disorder prior to surgery. In case of surgery or trauma induced bleeding, blood transfusions may be used to increase the amount of circulating platelets.

References

Haysom LZ, Kennerly RM, Müller RD, SmithCarr S, Christopherson PW, Boudreaux MK. Identification and Characterization of Glanzmann Thrombasthenia in 2 Closely Related Mixedbreed Dogs. J Vet Intern Med. 2016 Mar-Apr; 30(2): 642–646. doi: 10.1111/jvim.13825

