VETERINARY TECHNICAL DATASHEET

Glanzmann Thrombasthenia Type I, (GT); mutation originally found in Great Pyrenees

Mutation Found In :Great Pyrenees

Disorder Type

- Blood

Disease Severity

- Moderate

Background

Glanzmann thrombasthenia (GT) type I is a blood disorder described in the Great Pyrenees and the Otterhound; this variant is known to cause the condition in the Great Pyrenees. GT is characterized by poor blood platelet aggregation leading to bleeding issues.

Key Signs

- Nose bleeds
- Bleeding from the gums
- Prolonged bleeding during 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 bleeding, bleeding from the gums, 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.

Mode of Inheritance

- autosomal recessive

Gene Name

- ITGA2B

Next Steps

Affected dogs should be monitored closely for excessive and prolonged bleeding during and after any required surgical procedures or after any trauma. Supportive care during bleeding episodes is indicated. Blood or platelet transfusions should be provided as necessary to ensure proper clotting if other means are unsuccessful.

References

Lipscomb DL, Bourne C, Boudreaux MK. Two genetic defects in alphaIIb are associated with type I Glanzmann's thrombasthenia in a Great Pyrenees dog: a 14-base insertion in exon 13 and a splicing defect of intron 13. Vet Pathol 37(6):581-588, 2000.

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