Practical guide to diagnosing coagulopathy, with Professor Bruce Parry: Part 2

Secondary coagulation and the coagulation cascade.

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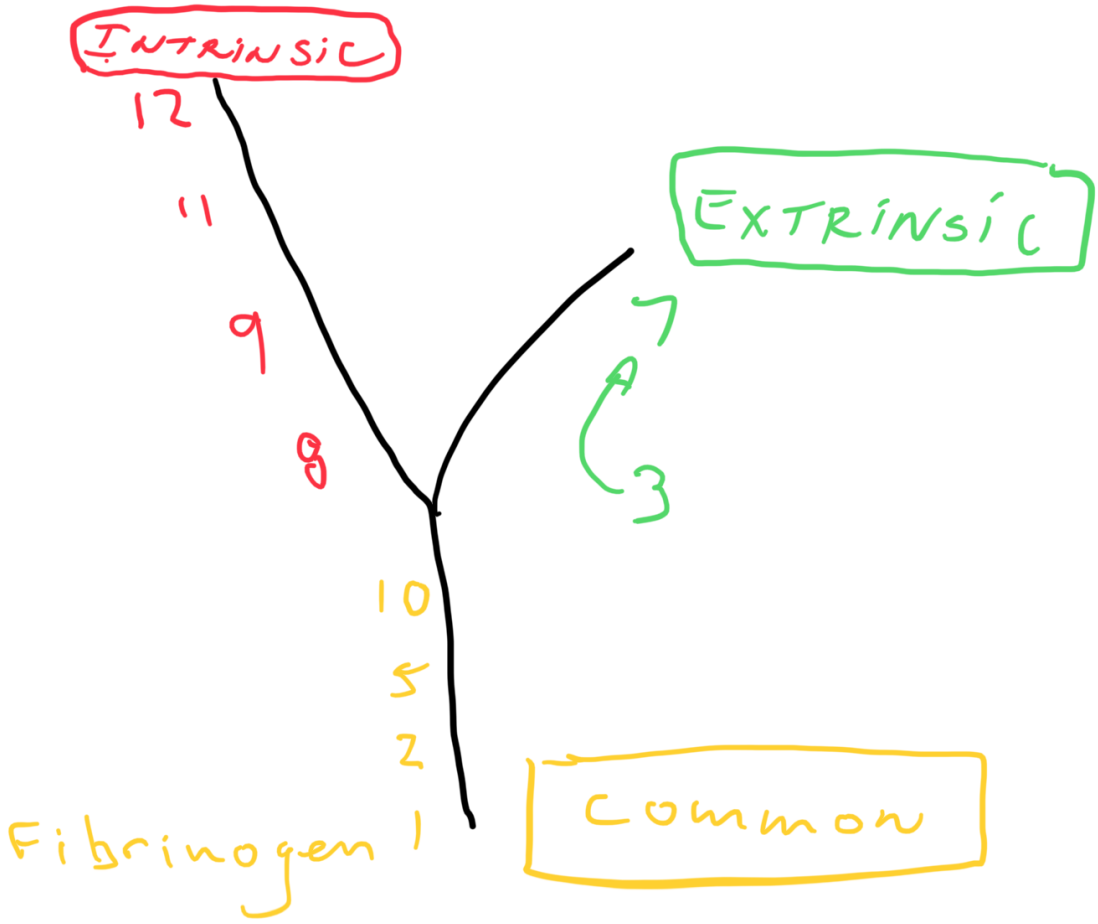
Show notes

Tests to evaluate secondary coagulopathy: APTT, APT or ACT (Activated Clotting time)

APTT and APT - test results need to be **25% more** than normal to be considered to be a problem.

Coagulation cascade



Left arm - **L**ong pathway - long name = APTT
Pro tip to remember the factors: $11.98 - rounds up to 12

Short arm - short name - APT.

ACT and APTT both assess the intrinsic and the common pathways.
ACT needs a more significant factor deficiency than APTT to be abnormal, so APTT is more sensitive, but if the animal has clinical signs of bleeding due to an abnormal intrinsic or common pathways ACT will be abnormal.

Note - a profoundly low platelet count will prolong ACT results, because factor 8 and 5 work best on platelets.

Vitamin K antagonist anticoagulant rodenticides affect the production of Vit K dependant clotting factors in the liver. These are 2, 7, 9 and 10, so both APTT and APT are affected. BUT actor 7 has the shortest half life, so it's the first to disappear, and APT is the first to be affected.

Pro tip If APTT and APT are increased - highly suspicious for anticoagulant rat bait. Congenital problems that affect the common pathway and thus both APTT and APT are very rare.

If APTT is abnormal and PT normal then we're limited to problems in the intrinsic pathway: 8, 9, 11 and 12. Start with 8 (haemophilia A - most common congenial factor deficiency). Next 9 - haemophilia B, then 11 - Haemophilia C.)

Factor 12 deficiency not common and when it occurs does not cause clinical bleeding problems.

Pro-tip: some cats have a congenital factor 12 deficiency and thus a prolonged APTT with no clinical bleeding.