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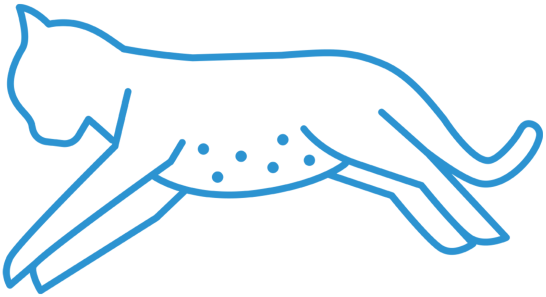

Bleeding Disorders and Hemostasis

micro drip study guide

March 24, 2022

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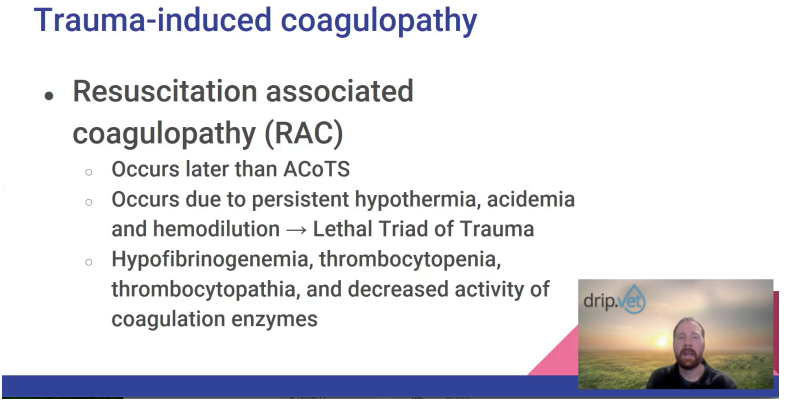
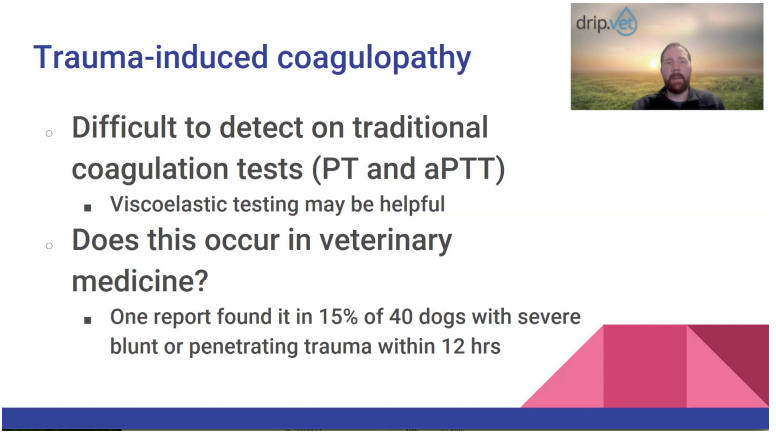


Now we also have to deal with resuscitation associated coagulopathy.

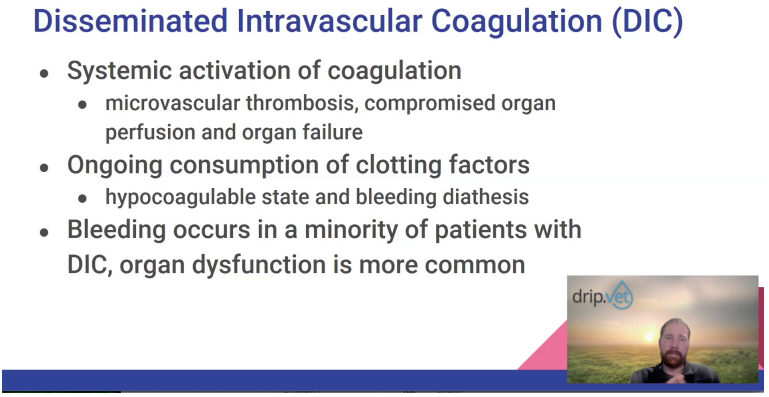
So we also talked a lot about resuscitation the last couple of times. This is a separate process from ACoTS. It actually occurs later after ACoTS. And it basically is due to persistent hypothermia, acidemia, and hemodilution.

These three things are called the lethal triad of trauma, which is a really cool nickname. Whoever came up with that should be very proud of themselves. And it's caused by hypofibrinogenemia, thrombocytopenia, thrombocytopathia, as well as decreased activity of coagulation enzymes.



It is difficult to detect on traditional coagulation tests. So if you run a PT, aPTT, you might not actually notice any abnormalities but they may actually have an underlying coagulopathy. But viscoelastic testing-- so that's something like a TEG-- that may be helpful in determining if this process is occurring. Now again this is all human information.

There was one study, one report that looked at 40 dogs and they basically found that about 15% of them had evidence of essentially either ACoTS or the resuscitation induced coagulopathy after trauma. So some evidence I guess that this might occur in our patients as well.



Everybody's kind of heard of this, Disseminated Intravascular Coagulation, DIC. The nickname for DIC is Death is Coming because it's a very bad thing once that happens. It's essentially systemic activation of coagulation. This then leads to microvascular thrombosis, compromised organ perfusion, and organ failure.

Then, as you have this microvascular thrombosis going on, you can still have ongoing consumption of clotting factors. First, you become hypocoagulable. And then, eventually, over time, you actually become hypocoagulable. And then you get this bleeding diathesis, where basically you just bleed out of everywhere and die.

Bleeding is less common in DIC. I think people forget that this is primarily actually a hypocoagulable state, so you're actually more likely to have too much thrombosis, but it can actually lead to a hypocoagulable state. So it's kind of why we're talking about it here today.