Veterinary Bioscience: Metabolism

KEY LEARNING POINTS WHY IS IT YELLOW AND HEAD-PRESSING? VETERINARY BIOSCIENCE: METABOLISM

The materials provided (lecture notes, annotated lecture images and practical Question and Answer sheets) should allow you to answer the following questions.

- What is meant by the term **jaundice**?
- What is meant by the term **cholestasis**?
- Which part of the normal process of bilirubin metabolism is most vulnerable to disruption and why?
- What are the three broad causal mechanisms that you should consider in any jaundiced animal?
- Which domestic animal species develop **hepatogenous photosensitisation**? What clinical signs would make you suspect that an animal has photosensitisation? What is the pathogenesis of hepatogenous photosensitisation?
- What is the pathogenesis of **hepatic encephalopathy**? How may hepatic encephalopathy manifest clinically in domestic animals? What are the typical central nervous system lesions of hepatic encephalopathy?
- In what types of liver disease can hypoalbuminaemia develop and why? Is oedema
 formation caused solely by hypoalbuminaemia common in domestic animals with liver
 disease?
- What are the various mechanisms responsible for **ascites** development in animals with liver disease?
- What is meant by the term **portal hypertension**? What are some causes of portal hypertension? Why do animals with portal hypertension often develop ascites? What is typical of the abdominal effusion in an animal with portal hypertension?
- What are some conditions that can cause increased pressure in the hepatic sinusoids and perisinusoidal spaces and hence **increased hepatic lymph formation**? What is typical of the ascites fluid that can accumulate in an animal with excess hepatic lymph formation?
- In what circumstances might you see an animal pass fresh faeces that are cream or white (acholic)?
- Why does hepatic disease potentially predispose to **haemorrhage**? Conversely, why does hepatic disease potentially predispose to **thrombosis**?

Veterinary Bioscience: Metabolism Lecture 4

• What is **bilirubinuric nephrosis**? Why do some animals with end-stage liver disease (cirrhosis) sometimes develop acute renal failure (**hepatorenal syndrome**)?

- Why do some dogs with portosystemic shunts or liver failure have **ammonium biurate crystals** in their urine?
- What other clinical signs in a dog might make you suspicious of liver dysfunction/failure?

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JAC 28.7.23