



PATIENT

Bombon Villanueva

SPECIES

Canine

BREED

Chihuahua

SEX

Female Intact

AGE

18W

WEIGHT

5lbs

INTERPRETED BY

Nele Eley (Ondreka),
DVM Dr. med. vet.,
DipECVDI

IMAGING PERFORMED BY

Justeene Marquez

HOSPITAL NAME

Petroglyph Animal
Hospital

REFERRING VET

Whitney Jones

INVOICE

73458

DATE

1-26-26

PRESENTING CLINICAL SIGNS

History:

- Seen initially 1/5/26 for neurologic symptoms- bloodwork at that time showed significant liver enzyme elevation- hospitalized for 48 hours and neuro symptoms resolved within 12 hours. Bile acids pre and post prandial submitted that day and returned with severe elevation pre (142) and post 132) and advised concern for liver shunt. CT scan advised to plan for possible placement of ameroid constrictor if extrahepatic changes found.
- Patient currently on lactulose and managed well with this, neurologically normal with no seizures.

Abnormal PE/Chem/CBC/UA Results: - CBC 1/26/26: HCT 30% - Chemistry 1/26/26: CRE 0.2 (L), BUN 4 (L), hypoalbuminemia 1.9 (L), ALT 702 (H), ALP 1644 (H)

COMPUTED TOMOGRAPHIC STUDY OF THE ABDOMEN

Plain and post contrast studies are available for review.

COMPUTED TOMOGRAPHIC FINDINGS

Small size of the liver is noted most pronounced in the right and central divisions of the liver.

An abnormal vascular connection is identified between an artery emerging from the hepatic artery and draining into the portal vein in the right division located either intrahepatic or just extrahepatic. Right and central divisions of the liver are largely displaced by a large diameter tortuous AV fistula.

Multiple small acquired collateral vessels are visible throughout the cranial abdomen and retroperitoneum. The extrahepatic portal vein diameter increases at the portal hilus consistent with hepatofugal flow.

A moderate amount of free peritoneal fluid is seen.

Other abdominal organs appear unremarkable as far as assessable.

COMPUTED TOMOGRAPHIC DIAGNOSIS

- Congenital arterial venous fistula between hepatic artery and portal vein (arterial venous shunt).
- Secondary portal hypertension evidenced by hepatofugal flow and multiple acquired collaterals.
- Microhepatica likely secondary to chronic decreased portal perfusion.

INTERPRETATION OF FINDINGS & FURTHER RECOMMENDATIONS

The vascular anomaly explains the previous neurologic episodes and markedly elevated bile acids. The arterial venous fistula causes portal blood to bypass the hepatic metabolism leading to hepatic encephalopathy. The presence of acquired collaterals and free fluid indicates portal hypertension.

Surgical attenuation of the arterial venous fistula along with medical and dietetic management can be considered. Interventional treatment is less commonly used, especially in small breed pups. Prognosis is guarded to fair. Surgical intervention with AV fistula attenuation usually carries the fair to good chance of long term survival if the shunt can be completely attenuated and liver tissue regenerates.



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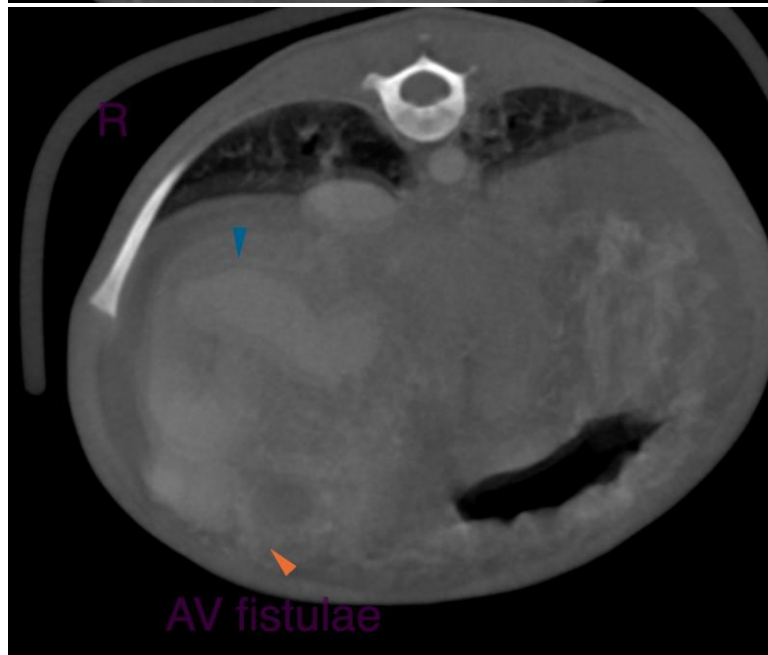
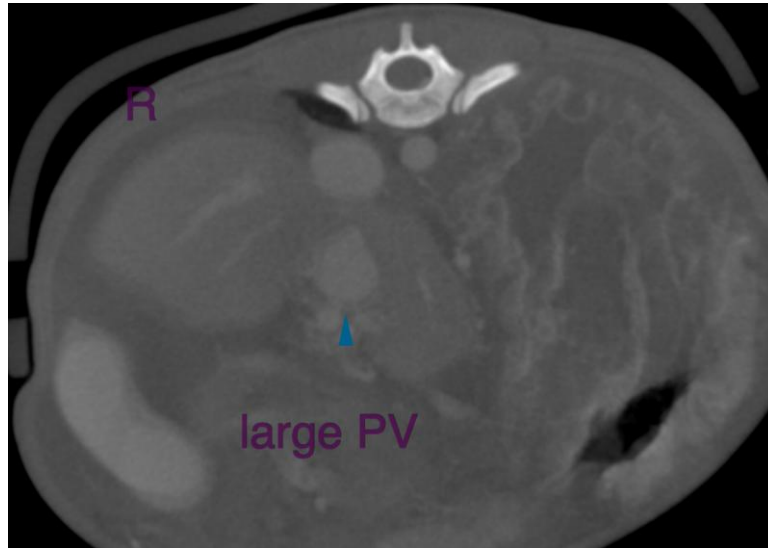
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Regenerative potential of the hepatic tissue is usually favorable in young dogs.





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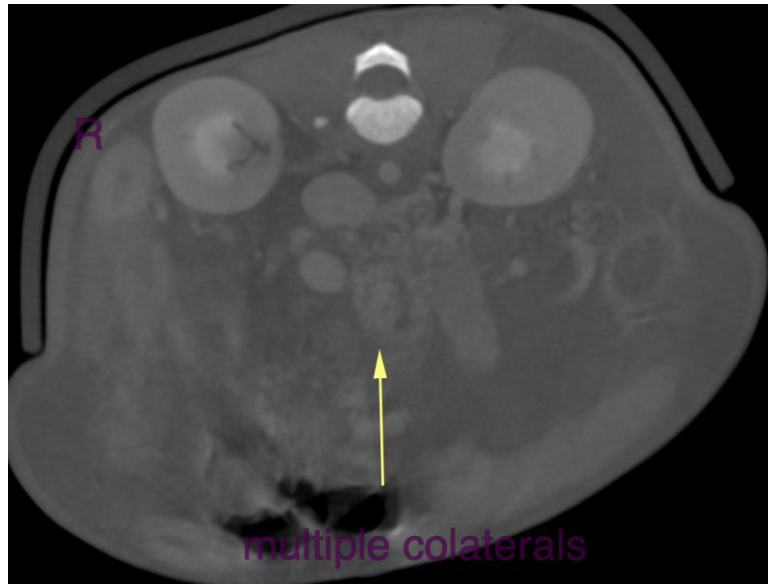
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Nele Eley (Ondreka), DVM, Dr. med. vet., DipECVDI
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Senior lecturer University of Giessen/Germany, Veterinary Faculty, Department of Radiology.
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