

CT APPEARANCE OF CANINE HEPATIC ALVEOLAR ECHINOCOCCOSIS

Introduction and aim of the study

- Alveolar echinococcosis (AE) is a parasitic disease that is caused by the tapeworm *Echinococcus multilocularis*
- Dogs are potential incidental intermediate hosts by coprophagia or eating contaminated grass
- The liver is the most commonly affected organ
- Aim of the study: Describe the CT findings of hepatic lesions diagnosed with AE



<https://upload.wikimedia.org/wikipedia/commons/e/ef/Echinococcus-multilocularis-adult.jpg>

Methods

- Retrospective study
- Privately owned dogs referred to the small animal clinic Hofheim
- Diagnosis confirmed by histopathology and/ or DNA-PCR-Test

Results

Patients with thick walled lesions
7/12

Patients with thick and thin walled lesions
2/12

Patients with thin walled lesions
3/12

Mean max. diameter

18,7 cm

1,0 cm to 16 cm

8,4 cm

Mineralisation

Yes

Yes / No

No

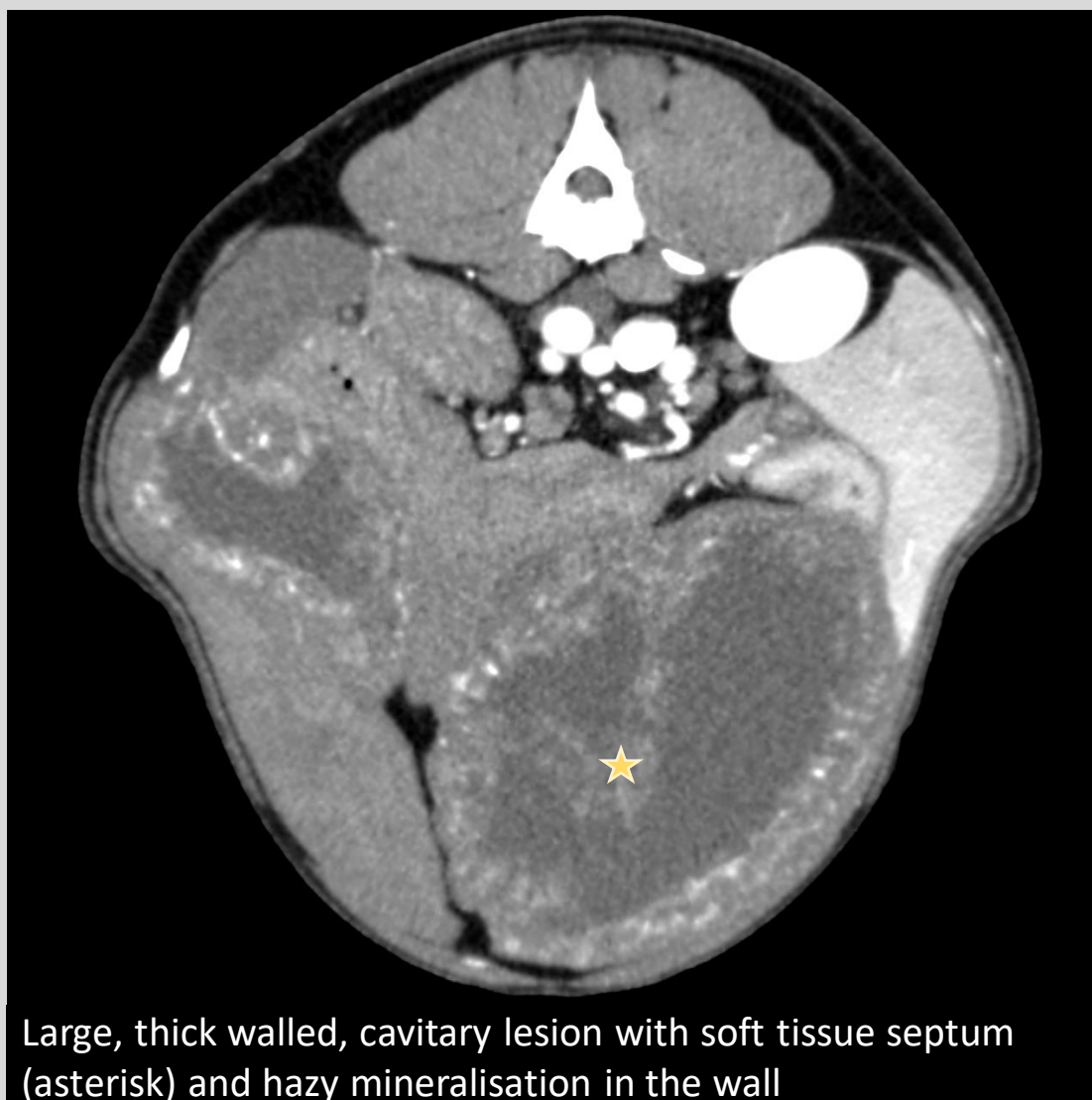
Contrast uptake of the wall

Mild to none

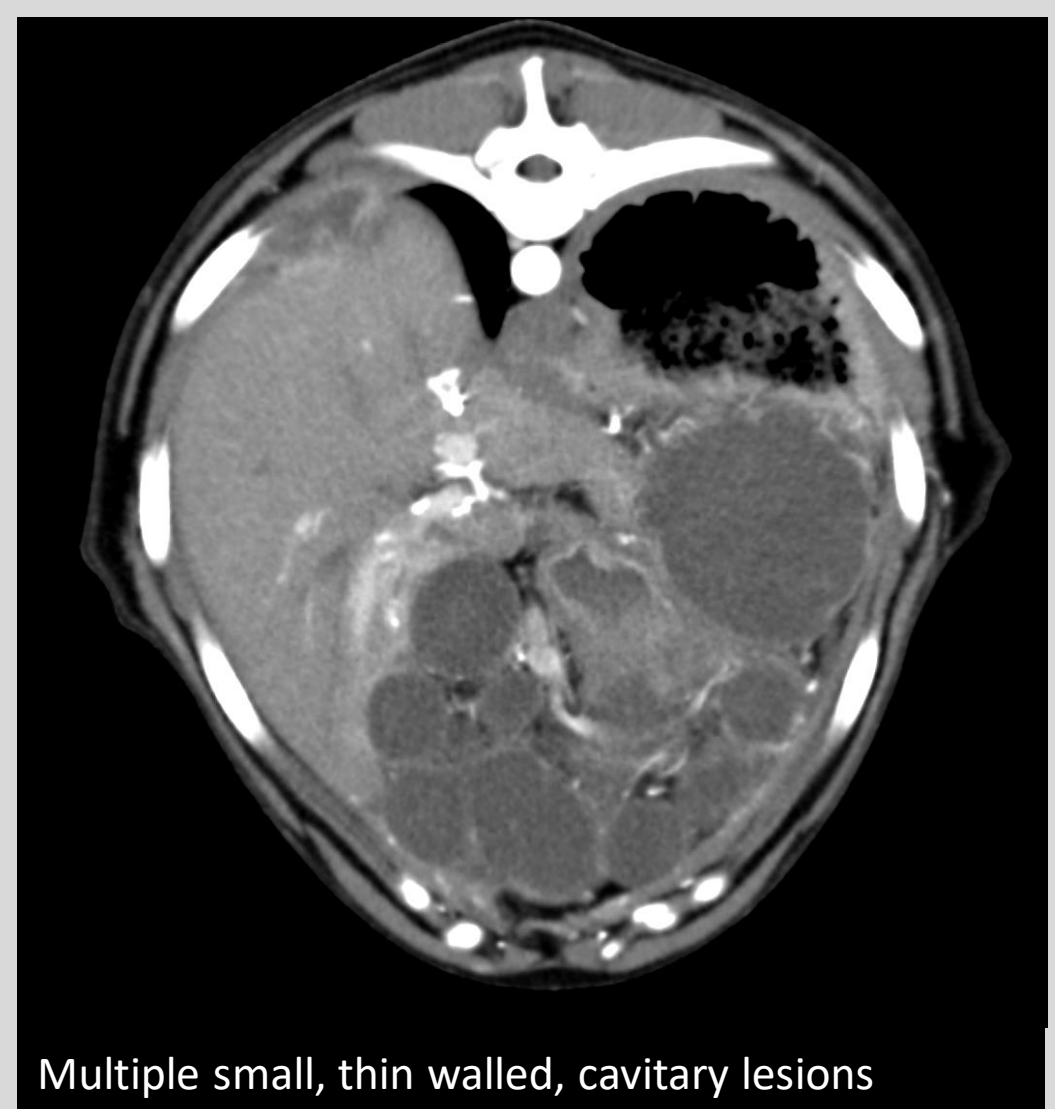
None to high

Moderate to high

Two typical CT-appearances associated with AE:
large **thick walled** and smaller **thin walled** lesions



Large, thick walled, cavitory lesion with soft tissue septum (asterisk) and hazy mineralisation in the wall



Multiple small, thin walled, cavitory lesions

All lesions in all patients

12/12

- Well marginated
- Soft tissue septa
- Cavitory
- No central contrast uptake

Discussion

→ Hypothesis: the two groups show different stages of an AE, with the smaller lesions progressing or merging into larger ones

- Differentiation of AE from other hepatic masses:
 - obvious cavitation with irregular internal margination and septation
 - no significant central contrast uptake
 - larger lesions with mineralisation