ProtonVet
VETERINARY RADIOLOGY

COMPUTED TOMOGRAPHY REPORT

REFERRRING CENTER

Referring hospital:
Referring veterinary:
E-mail:
Tel:

PATIENT INFORMATION

Owner: Patient's name:
Species: Can Breed: Crossbreed Sex: Fem Neutered Age: 8 Y Weight: 30 KG
History: Progressive loss of mobility in the hindlimbs. Came to the emergency room with paraparesis, with loss of deep pain perception. No previous illness. Blood analysis normal.
Region: thoracolumbar spine and thorax

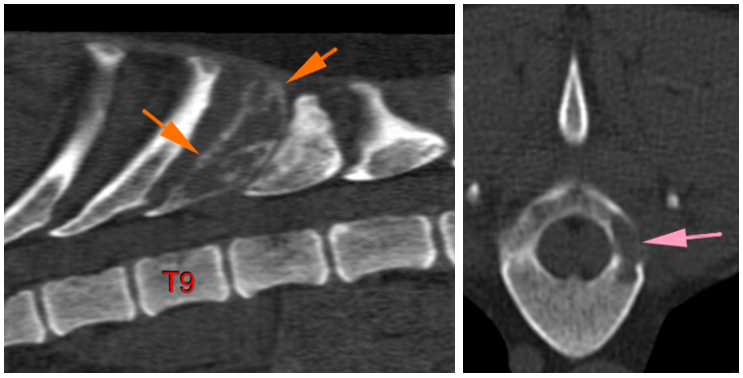
REPORT

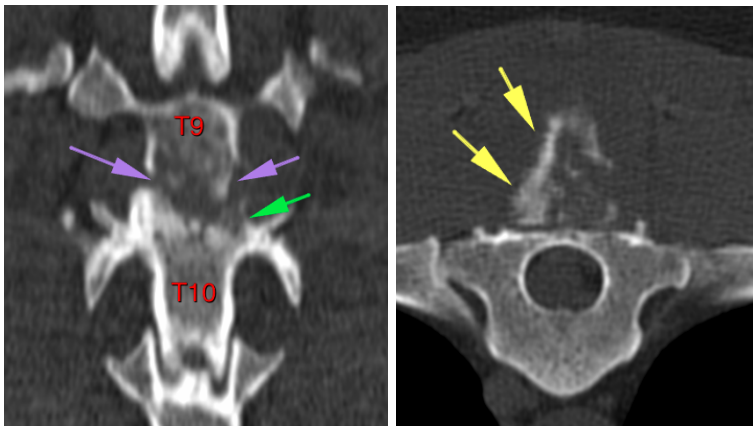
Technical comments: pre- and post-contrast of the thoracolumbar spine (IV and MyeloCT) and thorax, evaluated with soft tissue, lung and bone algorithms, with slice thickness of 1-3 mm.

Report:

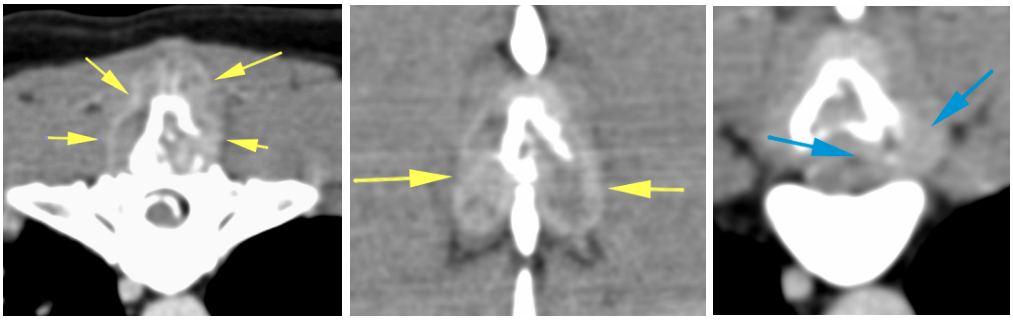
There are 13 thoracic vertebrae, with T13 showing 2 normal ribs.

There is an expansile and destructive lesion affecting the spinous process (orange arrow), left pedicle (pink arrow), dorsal lamina and both caudal articular processes of T9 (purple arrow), as well as the left cranial articular process of T10 (green arrow). This lesion shows a lytic permeative pattern of the medullary cavity, with disruption of the cortices and a spiculated periosteal reaction (yellow arrows), especially at the spinous process, with an ill-defined transitional area.

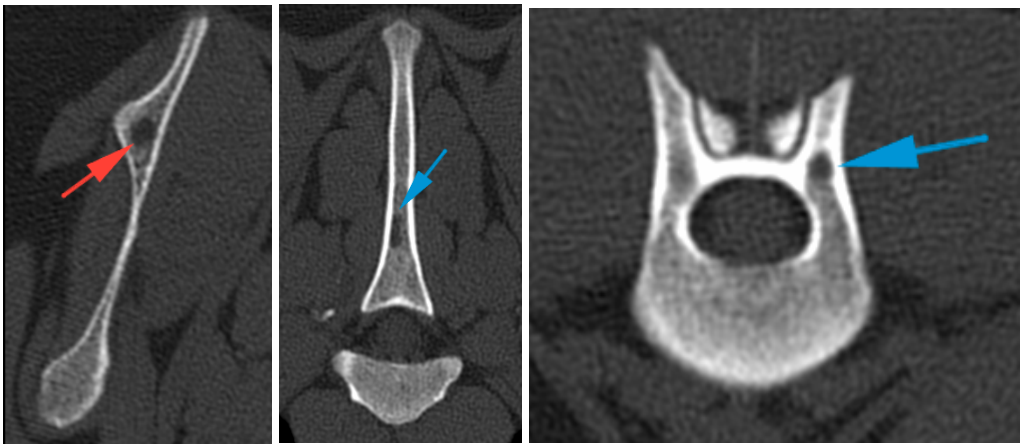




In the post-contrast study, performed after the MyeloCT, the lesion shows a soft tissue component that is more clearly visible, showing a marked and heterogeneous contrast enhancement, affecting the epaxial musculature, surrounding the spinous process of T9 (yellow arrows) and infiltrating the vertebral canal on the left and ventrally, as well as the left intervertebral foramen (blue arrows) which is slightly widened. This lesion displaces and compresses the spinal cord.



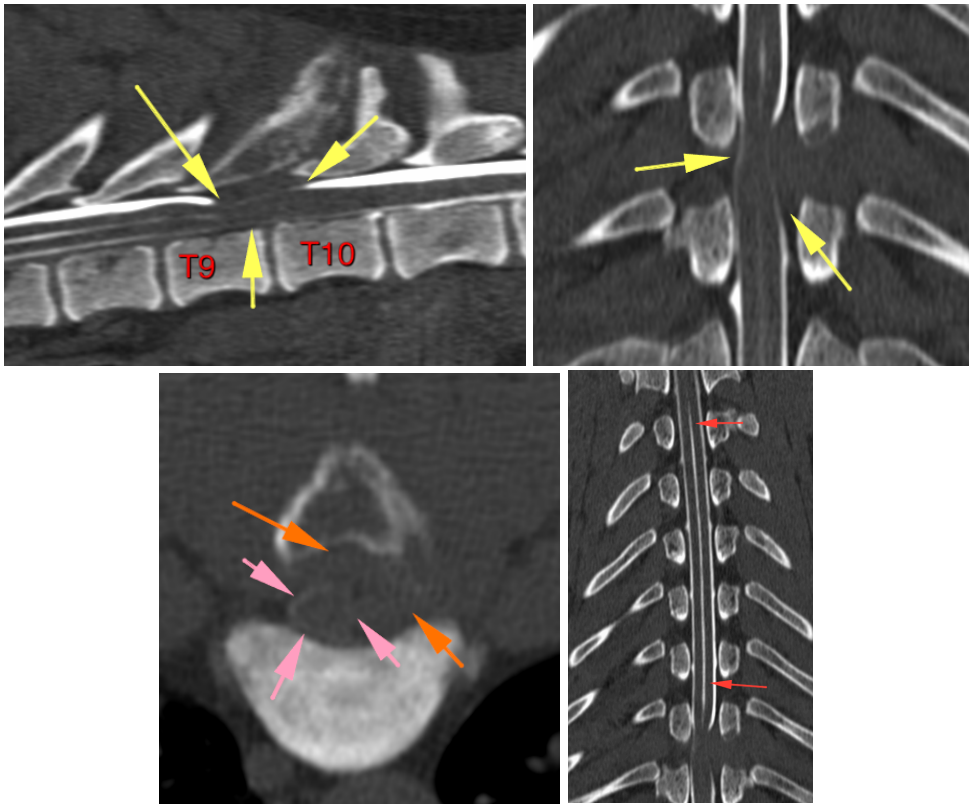
On the spine of the right scapula, there is a round, geographical lytic lesion, that does not affect the cortex, with a short transitional zone (well defined) (red arrow). There are a couple of similar lesions affecting the spinous process of T3 and left pedicle of T13 (blue arrows).



MyeloCT (contrast injection at L5-L6):

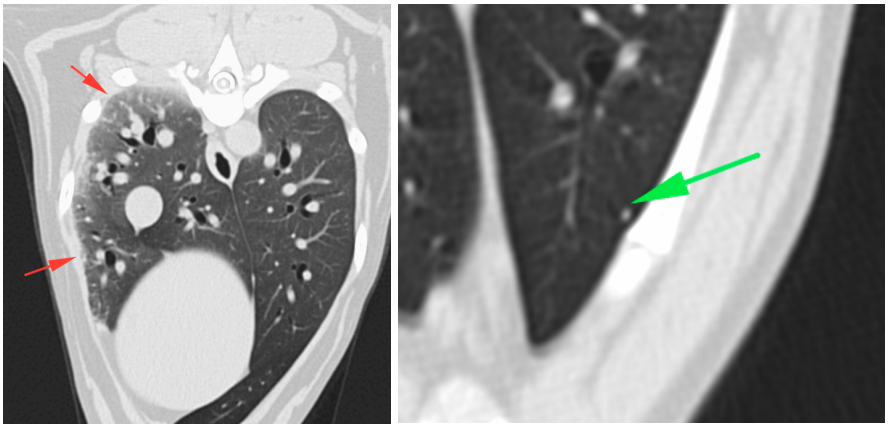
The dorsal and ventral contrast columns can be followed correctly until the cranial aspect of T10, where they are attenuated and displaced towards the right and ventrally at the level of

the vertebral body of T9 (yellow arrows) by an extradural lesion, located dorsally and to the left (lesion previously described) (orange arrows). This lesion displaces the spinal cord towards the right, compressing it moderately (pink arrows). Cranial to T9, the contrast columns recover a normal appearance. Presence of contrast at the level of the central canal that extends along the spinal cord (red arrows).



Thorax

The pulmonary parenchyma is not correctly aerated, especially the right dorsal aspect, where there is a decrease in volume and multiple ill-defined areas of increased attenuation, diffusely distributed (red arrows). Presence of very small, round, mineral attenuating structures, located in the periphery of the pulmonary parenchyma, consistent with osteomas (green arrow).



The cardiovascular structures are within normal limits. Trachea and esophagus normal. There are no signs of thoracic lymphadenopathy.

The cranial abdomen included does not show significant abnormalities.

Conclusions:

Spine

1. Expansile and aggressive osseous lesion affecting T9 and the cranial articular process of T10, with a soft tissue component that extends into the vertebral canal, consistent with a neoplastic process (osteosarcoma, most likely; chondrosarcoma or fibrosarcoma, less likely). The lesion behaves like an extradural lesion, causing a moderate/severe compressive myelopathy based on the MyeloCT findings.
2. Geographic lytic lesions in the right scapula, spinous process of T3 and left pedicle of T13, can be consistent with degenerative changes (cysts), although bone metastasis could also be possible, taking into account the remaining findings.

Thorax:

3. Pulmonary osteomas.
4. Areas of alveolar pattern at the right dorsal lung consistent with recumbency-related atelectasis most likely.

Comments:

CT guided or ultrasound guided FNAs of the lesion at T9 is recommended in order to reach a definitive diagnosis. There are no signs of metastasis in the pulmonary parenchyma, however, this cannot be completely excluded in the areas that cannot be properly assessed due to recumbency-related atelectasis.

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