Radiographic Diagnosis:

Severe (Grade 5) spondylosis of the thoracic spine caudal to the withers

Commentary:

Back pain is reported as a major cause of poor performance and lameness in sport and race horses.\(^1\,^2\) Diagnosis of back pain can be challenging and several papers have been published on the clinical examination of the horse’s back.\(^3\,^4\,^5\) Determining if back pain is present requires a thorough clinical examination. Detecting the site of pain often requires a combination of radiography, ultrasonography and nuclear scintigraphy. Nuclear scintigraphy provides useful information on the location and physiology of lesions. Radiographs can identify osseous lesions, as demonstrated in this case. Ultrasound can be used to document osseous and soft tissue lesions. However, lesions of the vertebral bodies cannot be imaged ultrasonographically in the thoracolumbar areas, except caudal to L4 with a transrectal approach.

Lesions of the vertebral bodies are not commonly reported. In a recent study, 23 (3.4\%) of 670 horses with back pain had vertebral spondylosis.\(^6\) These results are similar to a prior study of 443 horses that presented with back problems, in 8 (2.7\%) of which vertebral spondylosis was diagnosed.\(^4\) Radiographic evidence of vertebral spondylosis was found to occur most frequently in the T10-T14 region.\(^4\,^6\) This is likely due to the greater degree of lateral motion and axial rotation that occurs in the T10-T14 region.\(^7\) Clinical signs associated with spondylosis were reported as restricted thoracolumbar spine mobility, *longissimus dorsi* muscle spasm, back stiffness, and poor performance.\(^6\) In conclusion, vertebral spondylosis lesions may be uncommon, however when present they can cause clinically significant back pain, particularly those of higher grade lesions.

References: