



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2008 – Skeletal Muscle Case 12

Case #12 (D02-46094Q)

Anamnesis: Cat domestic shorthair, 6 month old, male.

History: During workup for a heart murmur, thoracic radiographs revealed severe osteopenia. Blood work revealed a marked increase in ALP, and a decrease in calcium and phosphorus. He had a PTH level of 30.4 (2-13), a PTHrP of 0.3 (<0.2), and ionized calcium of 1.34 (4.93-5.65) and a vitamin D level of 21 nmol/l (82-285). Whole body radiographs at necropsy revealed marked decrease in density with very thin cortices involving the entire skeleton. Several of the bones fractured during the necropsy examination.

Slide description: Two sections (transverse and longitudinal) of long bones in which the entire cortex has been converted from cortical bone to thin trabeculae of woven bone, often lined by plump osteoblasts. The marrow spaces are filled with loose fibrillar connective tissue. In approximately half of the section, the endosteal bone has proliferated, causing a decrease in diameter of the marrow cavity. Osteoclasts are numerous.

Diagnosis: Severe, diffuse cortical osteopenia and trabeculation with myelofibrosis.

Comment: These changes are compatible with a clinical diagnosis of fibrous osteodystrophy.