



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2008 – Skeletal Muscle Case 6

Case #6 (D04-014330)

Anamnesis: Bovine calf, Holstein breed, Paralysis

Necropsy findings: Numerous ribs are fractured and distorted (malformed) with enlargement of costo-chondral junctions.

Slide description: This is a section of costochondral junction in which the hypertrophic zone of growth plate is diffusely, but irregularly, thickened. There is a locally extensive area of clefting along the chondro-osseous junction subjacent to an area of greatly thickened growth plate. The primary spongiosa is primarily cartilaginous and the secondary spongiosa exhibits marked cartilage retention. Bony trabeculae in the metaphysis are reduced in size and have few interconnections. Trabeculae throughout the section are lined by active osteoblasts; filled with loose fibrillar connective tissue, and there is locally extensive myelofibrosis.

Diagnosis: Irregular thickening of the hypertrophic zone of the growth plate with marked metaphyseal osteopenia and locally extensive myelofibrosis.

Comment: These findings are compatible with rickets occurring secondary to a deficiency of phosphorus or vitamin D.