Myositis with Calcification in the Bovine

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incomplete epiphyseal separation of the distal radial epiphysis of the right carpus.

The horse was given 200,000 units of vitamin A and 100,000 units of vitamin D intramuscularly, and 2 oz. of Clovite® (Fort Dodge, contains vitamins A, D₂, D₃ and B₁₂ also Dicalcium Phosphate, Thiamine, Riboflavin, Pantothentic Acid, Niacin and Choline.) with 1½ oz. of bone-meal sprinkled on the feed.

The oral medication was repeated every day until the horse went home. The same amount of injectable vitamin A and D was administered again 5 days after the original dose. The animal was discharged on Jan. 18.

Both Texas and Minnesota are known to have phosphorus deficient areas. Due to the recent drought, hay from these areas was of poor quality and what oats the horse was getting may have been deficient in calcium. The vitamin D content of such feed would be negligible, the only source being the limited amount of sunlight available.

Without knowledge of the dietary history one can only postulate as to the origin of the trouble. Subclinical rickets is believed to remain undetected in a large percentage of the horse population of this country.

— Bob Carithers, ’56

Myositis With Calcification In The Bovine. A 6-year-old Angus cow was admitted to Stange Memorial Clinic on December 28, 1955. The animal was suffering from a myositis with calcification in the left front leg. The carpus was fixed in complete flexion, rendering the limb entirely useless. The animal also had a vaginal prolapse which had been caused by the lunging gait and the tremendous muscular exertion needed to rise.

History revealed that the cow had the injured leg when the owner purchased her 6 months ago. She had been injured a year previous to the owner’s purchase by an unknown cause. At one time the cow had been an extremely valuable animal. The owner wanted a calf from her if the condition could be corrected or alleviated.

A thorough physical examination was made and failed to show any secondary pathological complications. Radiographs revealed that the carpus was relatively normal in structure. The animal was then placed on the table and prepared for surgery. The entire left front leg was clipped and shaved. After scrubbing with surgical soap, the area was disinfected with alcohol.

The skin was incised lengthwise on the lateral side of the radius with a scalpel. Upon palpation and examination it was found that the tendons and fascia as well as the muscles were extensively calcified. The flexor muscles as well as the superficial and deep flexor tendons were severed with a blunt bistoury midway between the carpus and fetlock joints. Considerable traction was needed to straighten the leg to a position of extension. Once

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this was accomplished, the leg was wrap­
ped with cotton. Splints were then ap­
plied, followed by plaster paris wrap ban­
dages, in an attempt to keep the leg in a
state of extension. The primary incision
was packed with sterile gauze to control
hemorrhage.

The animal had an uneventful recovery
following surgery. The plaster cast was
removed on the third day, and a Thomas
splint was applied to hold the leg in a state
of extension for seven more days. One
million units of penicillin and 1.25 grams
of streptomycin were administered intra­
muscularly each day for the first 5 days.
Starting with the third day after surgery
terramycin® in oil was injected in the
open wound each day for one week. The
wound was quite swollen with consider­
able exudation during the first week af­
er surgery. However, healing took place
rapidly and was complete when the ani­
mal was released. The vaginal prolapse
also disappeared after the first week fol­
lowing surgery.

During the second week of recovery
the patient began putting weight on the
affected leg. Daily exercise showed that
the animal was gaining more use of the
leg each day. By the third week follow­
ing surgery, the patient applied its full
weight on the leg with full extension. The
patient was discharged January 26, 1956.
Although the leg was not restored to its
functional state before injury, the animal
could use it satisfactorily to move about.

— Hal Holst '57

3 Chronic Pancreatitis. The pan­
creas consists of secretory cells and islets of Langerhans. The secretory
cells produce an exocrine secretion
abundant in enzymes which effect the di­
gestion of proteins, fats and carbohy­
drates. The islets of Langerhans are
endocrin organs and furnish one
hormone governing sugar met abol­
ism, insulin; and one concerned with lipid
metabolism, lipocaic. Chronic pancreati­
tis is probably caused by such things as
extension of acute pancreatitis, blockage
of pancreatic duct by tumors or calculi or
chronic infections in the gland. The con­
dition is characterized by an atrophy of
the pancreas, usually of just the secretory
cells, thus causing an upset in digestion,
due to the lack of pancreatic enzymes. In
a few cases, the islets of Langerhans are
also involved in the atrophy, thus caus­
ing symptoms of diabetes mellitus along
with the upset digestion. Since the
atrophy of the pancreas can’t be cor­
rected, the patient must be given pan­
cratic enzymes the rest of its life, in or­
der to have normal digestion. Since the
pancreas may continue to slowly atrophy
over a period of months, the dosage of
pancreatic enzymes may also have to be
increased. Along with the enzymes, it is
a good policy to keep the dog on a well
balanced diet, either a commercial food
or a home made diet. It is wise to add
multiple vitamins, especially fat soluble
vitamins, to the diet.

Chronic pancreatitis has been diag­
nosed in four different patients at the
Stange Memorial Clinic since 1951. In
September, 1951, a 1½-year-old female
Border Collie was hospitalized for 16 days
with this condition. An 8-year-old female

View of leg 2 weeks postoperatively.