

## **What's Your Diagnosis?**

By: Megan Terry, Class of 2018

### **Signalment:**

TAG 68, 2 month old intact male Angus calf

### **Presenting Complaint:**

Swollen Right Carpus

### **History:**

Tag 68 presented to rDVM on April 12<sup>th</sup> for an umbilical infection. rDVM determined that the umbilical infection caused septicemia which then progressed into the right carpal joint. Excede was administered at that time. On April 17<sup>th</sup>, the rDVM lanced the abscess on the right carpus. May 4<sup>th</sup>, Penicilin G, Resflor Gold, and Naxcel, was administered as an intraarticular injection. On May 18<sup>th</sup> the carpus was bandaged. On May 25<sup>th</sup>, Excede was administered. On Jun 6<sup>th</sup> the right carpus was still swollen, bandage was changed, and purulent material observed.

### **PE Findings:**

T-103.2, Pulse-strong, Heart Rate-88 bpm, Respiratory Rate- 64 brpm, Temperament- bright alert and responsive. Swollen right carpus.

### **Bloodwork:**

none

**Diagnostic Plan:** 2 view carpus. Lateral and dorsopalmar radiographs





### **Findings**

There is soft tissue swelling at the level of the carpus. A small round well marginated gas like lucent opacity is located in the soft tissue proximal to the carpus. Amorphous mineralization is seen within the soft tissues at the dorsal aspect of the carpus. The antebrachio-carpal joint is within normal limits. There is severe lysis of the distal row of carpal bones and proximal articular margin of the fused third and fourth metacarpal bones and the distal articular margin of the proximal row of carpal bones. Cranial subluxation of the fused third and fourth metacarpals at the carpometacarpal joint. Open physis of the distal fibula consistent with young immature growing calf.

### **Conclusions:**

- Septic arthritis of the right middle carpal and right carpometacarpal joints
- Extracapsular soft tissue swelling indicative of cellulitis, abscess.
- Intracapsular soft tissue swelling indicative of septic effusion or synovial proliferation.
- Dystrophic mineralization

**Discussion:**

Umbilical infections are a common source of septic arthritis in calves. Failure of passive transfer or improper sanitary measurements after a calf is born increases the chance of ascending infection through the umbilicus and hematogenously spreading into the joint spaces or bones. Early and aggressive medical management including systemic broad spectrum long term antibiotics, intra-articular antibiotics, joint lavage, and arthroscopic drainage and debridement are essential for successful treatment. Osteomyelitis is a common sequela of chronic infectious arthritis and can be treated by arthrodesis of the affected joints. Lastly, a salvage procedure like amputation can be successful if the above treatments are unsuccessful.