TUMESCEENCE RECRUDESCEENCE
L1607727 Nubian Goat

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Signalment

• 2-year-old, female, Nubian goat presented to LSU in June of 2016:
  – Recurrent sternal abscess
  – Development of left stifle abscess

• Humane euthanasia

• Postmortem examination

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History

- Bacteriology and molecular diagnostic testing of FNA of the sternal abscess
  - March 2015
  - April 2015
  - March 2016

- Radiographs and biopsy of sternal mass
  - April 2015
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Bacteriology</th>
<th>Molecular diagnostic testing</th>
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<td>03/31/2015</td>
<td>Sternal abscess</td>
<td>Moderate growth <em>gram negative coccobacilli</em></td>
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April 2015:

- Biopsy
  - Chronic, multifocal to coalescing, necrosuppurative/caseating, fibrosing, osteomyelitis and cellulitis with suspected intralesional bacteria

- Radiographs
  - Aggressive expansile bone lesion affecting 5th sternebra and xyphoid process with severe soft tissue swelling
L1607727 Nubian Goat; Stifle Abscess

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L1607727 Nubian Goat
Sternal Abscess; Gram Stain 60X

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• **Sternum**
  – Abscess with muscular and bony involvement with intralesional gram positive cocci

• **Medial Left Stifle**
  – Abscess with muscular and mild joint involvement
  – Chronic arthritis and synovitis

• **Prescapular/Inguinal Lymph Nodes**
  – Lymphadenitis (not illustrated)
• **Lungs**
  
  – Chronic, severe, multifocal to coalescing granulomatous pneumonia with intralesional nematodes; adults, larvae, and eggs (consistent with *Muellerius capillaris*)

  – Kidney, Spleen (not illustrated), Liver

• **Amyloidosis**
• Bacteriology of Sternal Abscess:
  — Light growth of *Staphylococcus aureus* and *Corynebacterium* sp.

• Molecular Diagnostic Testing:
  — No *Mycoplasma* was detected from sample of sternal abscess

• Parasitology:
  — *Trichostrongyle*-type eggs (EPG TNTC) and *Eimeria* sp.
Prior to necropsy submission swab of left stifle abscess submitted for:

— Bacteriology:
  • Heavy growth of *Mycoplasma* sp.

— Molecular Diagnostic Testing:
  • *Mycoplasma mycoides* subspecies *capri* LC
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• Based on the various culture and PCR results:
  – *Mycoplasma* sp. infection most likely primary cause of abscessation
  – Secondary bacterial infection within sternal abscess with secondary regional lymphadenitis
  • Light growth of *Staphylococcus aureus* and *Corynebacterium* sp.
Sternal and Left Stifle Abscesses, Pulmonary Nematodiasis, and Systemic Amyloidosis
Mycoplasma mycoides subspecies capri LC

- *M. mycoides* cluster consists of six species
  - Ruminant pathogens

- *M. mycoides* subsp. *capri* LC in goats causes:
  - Mastitis
  - Arthritis
  - Pneumonia
  - Septicemia

- Differential identification of “mycoides cluster” is of major importance
  - Different members show differences in virulence and epidemiological impact

- Gram negative bacteria with broad range of shapes (cannot be classified as rods or cocci)

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This case presents an interesting group of caprine diseases occurring concurrently including:

- Mycoplasmosis
- Secondary Bacterial Infection
  - Sternal Abscess and Lymphadenitis
    - *Staphylococcus aureus* and *Corynebacterium* sp.
  - Pulmonary Nematodiasis
  - Systemic Amyloidosis
- Caseous lymphadenitis (*Corynebacterium pseudotuberculosis*) and pneumonia shown to cause systemic amyloidosis in goats
- Previous case of caseous lymphadenitis, parasitic pneumonia (*Muellerius capillaris*) and amyloidosis

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Special thank you to LSU SVM Veterinary Teaching Hospital and LADDL Microbiology, Molecular Diagnostic and Histopathology Departments

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