Latin Comparative Pathology Group
The Latin Subdivision of the CL Davis Foundation
Diagnostic Exercise

Case #: 22  Month: June  Year: 2012

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History:

Tissue collected from a 1 year old steer during slaughter at a meat plant in Southern California and submitted for diagnostic work up.

Photo: Dr Joaquin Ortega Porcel
1. **Description:** lymph node; normal architecture is replaced by multifocal to coalescing and more or less sharply delineated, grayish-white to yellow, areas of caseous necrosis.

2. **Morphologic diagnosis:** lymphadenitis, granulomatous, multifocal to coalescing

3. **Four possible causes:** Zygomycetes (*Mortierella* spp., *Absidia* spp., *Mucor* spp., others), *Mycobacterium bovis*, *Actinomyces bovis*, *Actinobacillus lignieresii*, *Nocardia* spp. In this particular case, the lesion was produced by Zygomycetes, probably the most common cause of lymphadenitis in cattle in Southern California. Culturing Zygomycetes from tissue lesions is difficult, and even when Zygomycetes are recovered, identification to species level is time-consuming and may require the expertise of a mycology reference laboratory. Therefore, diagnosis is, as in this case, usually made based on morphology of the fungus as it appears in tissue sections. Grossly, however, the lesion cannot be confidently distinguished from lymphadenitis produced by the other causes of lymphadenitis mentioned above.


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A final document containing this material with answers and a brief discussion will be posted on the C. L. Davis website by the end of the current month (http://www.cldavis.org/lcpg_english.html).