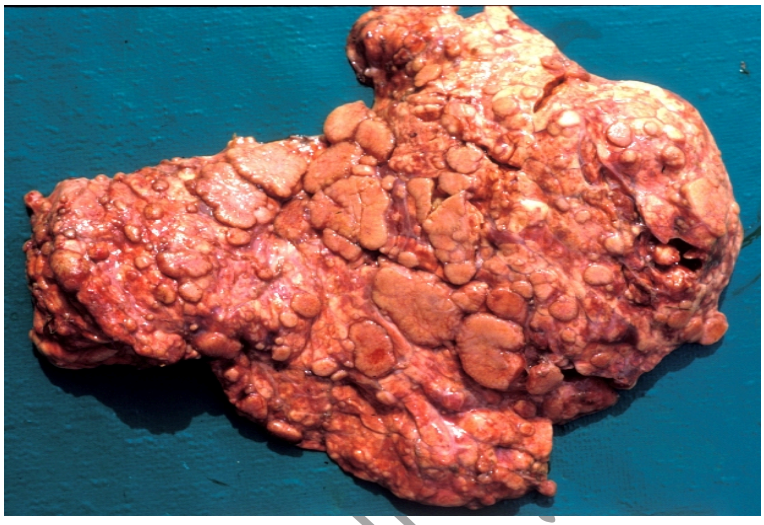
Disease : Tuberculosis

1- Organ: Lung (bovine)

Lesion: The lung parenchyma is almost entirely fulled with variably-sized, coalescing, raised pale nodules (tubercle).

Etiology: *Mycobacterium bovis*.

Diagnosis: granulomatous pneumonia (T.B)

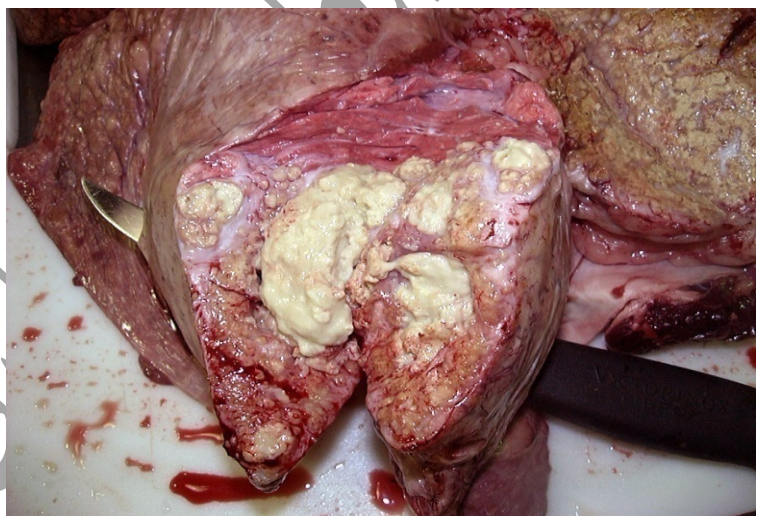


2- Organ: Lung (Bovine)

Lesion: Multiple areas of soft frible pale-yellow material that scattered in the lung parenchyma (caseous necrosis undergo liquefaction)

Etiology: *Mycobacterium bovis*

Diagnosis: granulomatous pneumonia with caseation (T.B.)

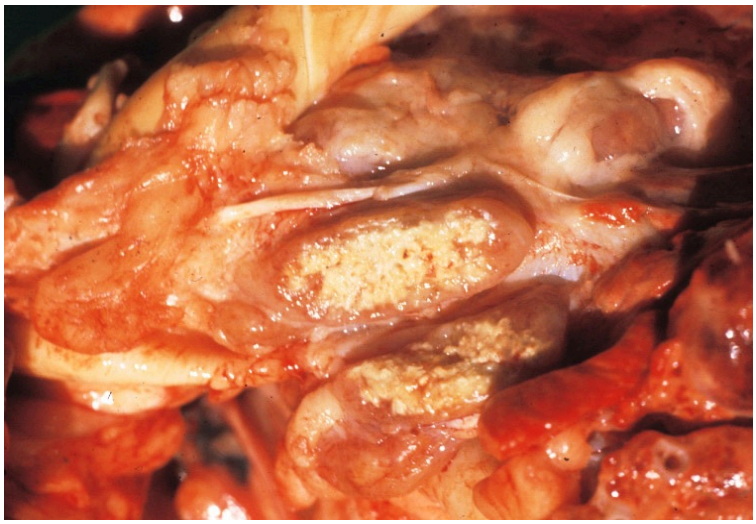


3- Organ: (Tracheobronchial L.N.) (Bovine)

Lesion: cross section of the bronchial lymph node that show multiple pale-yellow variable size areas that replace the L.N. tissue. These areas sometimes replaced with liquified and solid mineralized materials.

Etiology: *Mycobacterium bovis*.

Diagnosis: granulomatous lymphadenitis with caseation and mineralization (T.B.)



4- Organ: Liver, Lung and Spleen

Lesion: The surface showed numerous, uniformly dispersed, small sized white foci.

Etiology: *Mycobacterium bovis.*

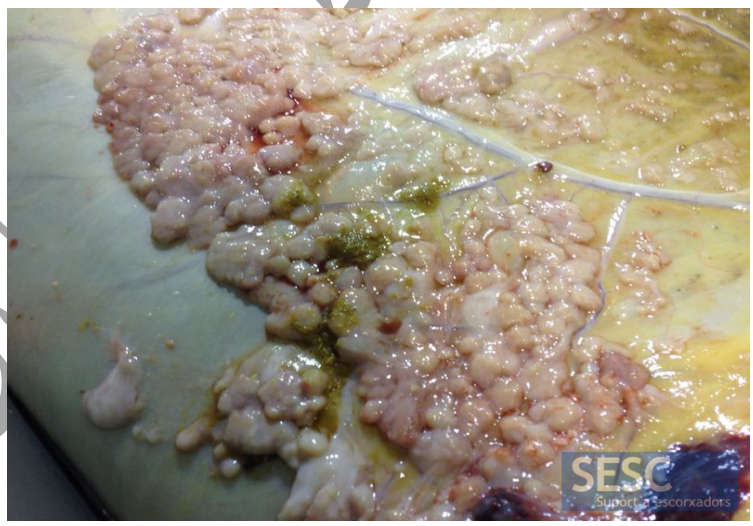
Diagnosis: granulomatous inflammation (Miliary T.B.)

5- Organ: (Rumen) (Bovine)

Lesion: There are different sizes of pale nodules (tubercle) raised on rumen serosal surface of an 8 years old dairy cow.

Etiology: *Mycobacterium bovis.*

Diagnosis: granulomatous peritonitis (T.B.)



6- Organ: Retropharyngeal L.N.(Pig)

Lesion: Lymphoid tissue replaced with pale-yellow friable depressed areas (caseous necrosis). The lesions were hard with a gritty consistency when cut (mineralization).

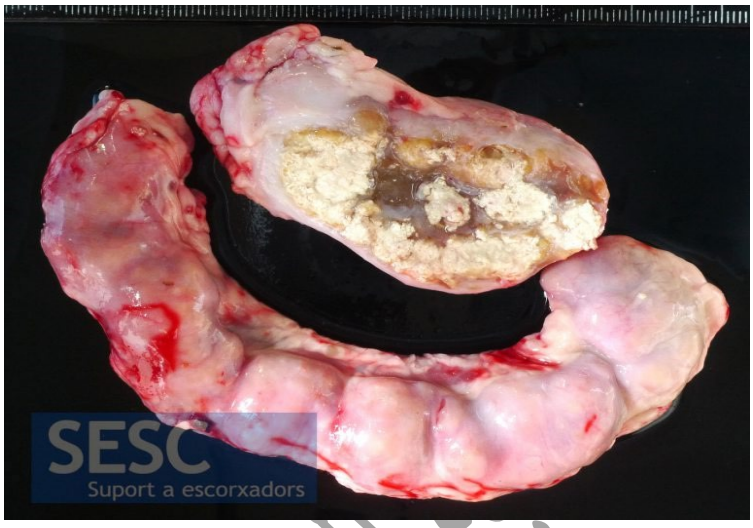
Etiology: *Mycobacterium bovis.*
Diagnosis: granulomatous lymphadenitis with caseation. (T.B.)

7- Organ:(lymph L.N.) (ovine)

Lesion: lymph node were enlarged and replaced by pale-yellow material.. *Mycobacterium caprae* was isolated from the lesions.

Etiology: *Mycobacterium caprae* .

Diagnosis: granulomatous lymphadenitis with caseation (T.B.)

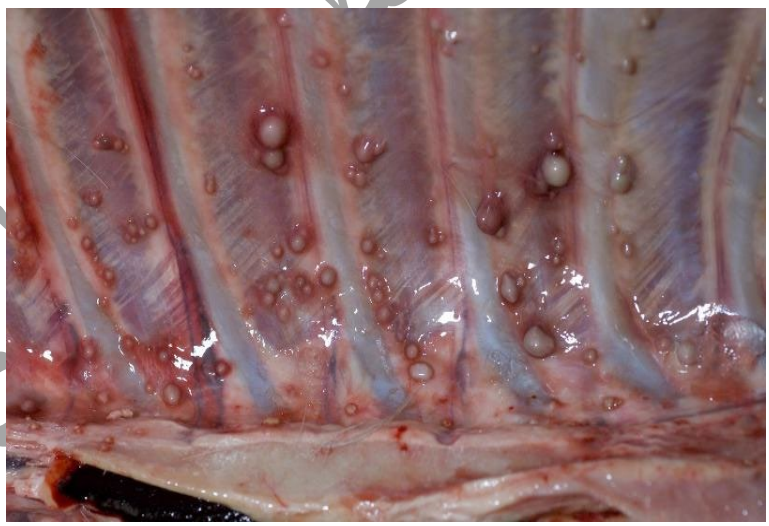


8 -Organ: Rib cage (Thoracic cavity) (Deer)

Lesion: : There are multiple tan yellow nodules of different sizes on the plural side of the rib cage. .

Etiology: *Mycobacterium bovis*.

Diagnosis: granulomatous pluralities (T.B.)



9 - Organ: Retropharyngeal L.N. (Pig)

Lesion: The lymph node shows many different size nodules (tubercles)either embedded in or raised above the L.N. surface.

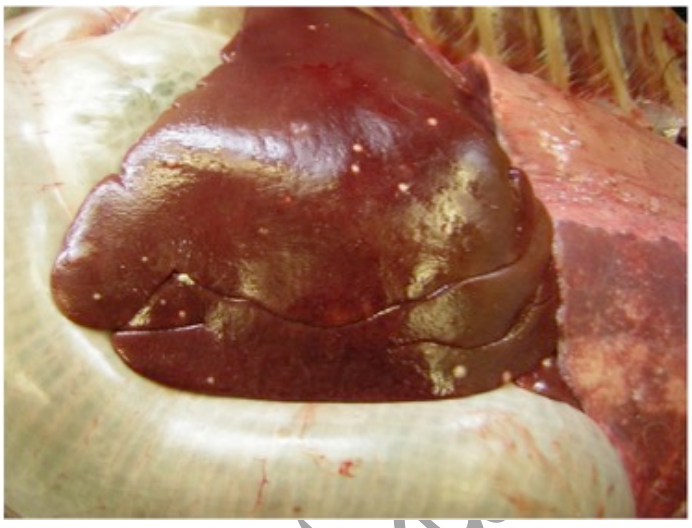
Etiology: *Mycobacterium bovis*
Diagnosis: granulomatous lymphadenitis (T.B.)

10 - Organ: lung and liver (llama)

Lesion: there are tanwhite foci scattered on the liver surface with extensive lung red consolidation.

Etiology: Mycobacterium bovis.

Diagnosis: granulomatous hepatitis with bronchopneumonia.(T.B.)

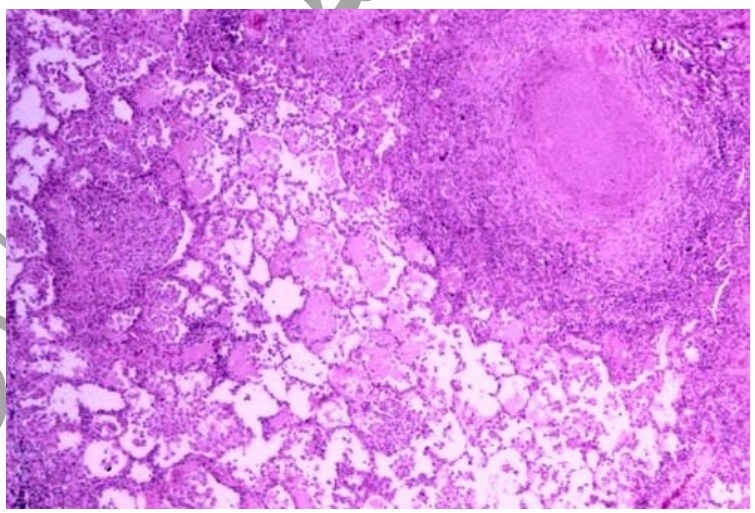


11 - Organ: Lung (Bovine).

Lesion: there are multiple granulomas scattered in the lung parenchyma consist of macrophages, epithelioid cells, lymphocyte and Langhans giant cells aggregated around area of caseous necrosis. (H&E),(Magnification: 5×).

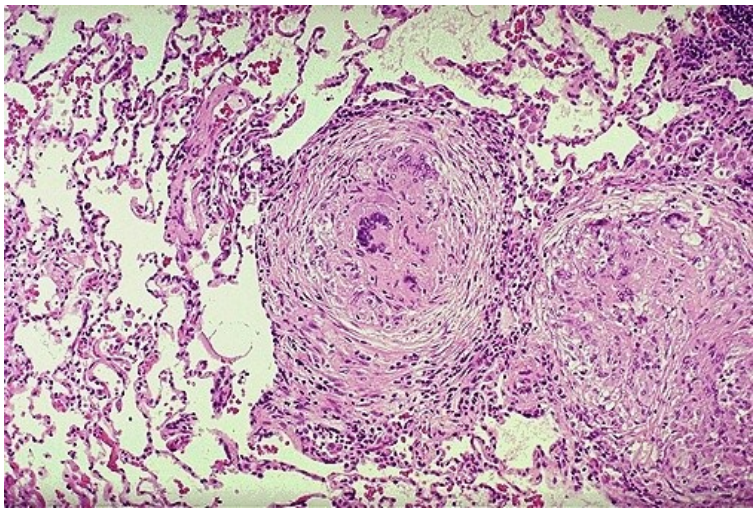
Etiology: Mycobacterium bovis.

Diagnosis: granulomatous pneumonia



12 -Organ: Lung (Bovine).

Lesion: caseous necrosis (no cellularity - upper right); edema in alveoli; inflammatory cells infiltrate (epithelioid cells, macrophages, and lymphocytes) in alveoli and around necrotic tissue.
H&E stain,(Magnification: 5×).
Etiology: *Mycobacterium bovis.*
Diagnosis: granulomatous pneumonia (T.B.)



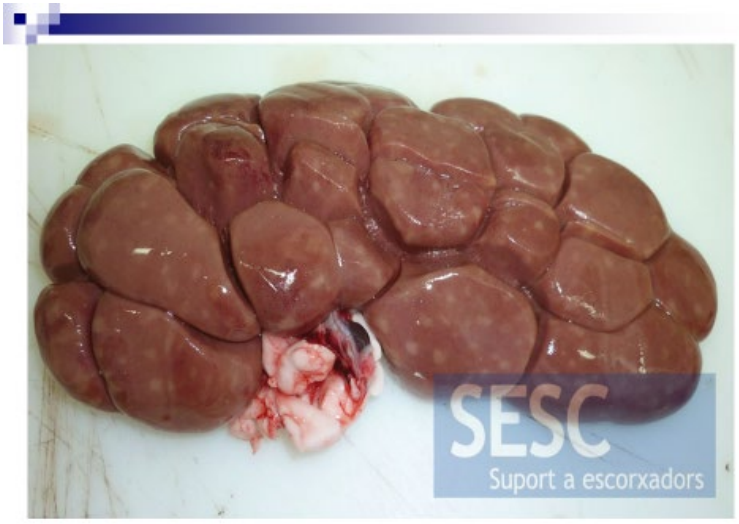
Disease : Leptospirosis

1 - Organ: kidney (bovine)

Lesion: White spots of miliary distribution on the kidney surface .

Etiology: *Leptospira hardjo bovis.*

Diagnosis: granulomatous nephritis (Leptospirosis).

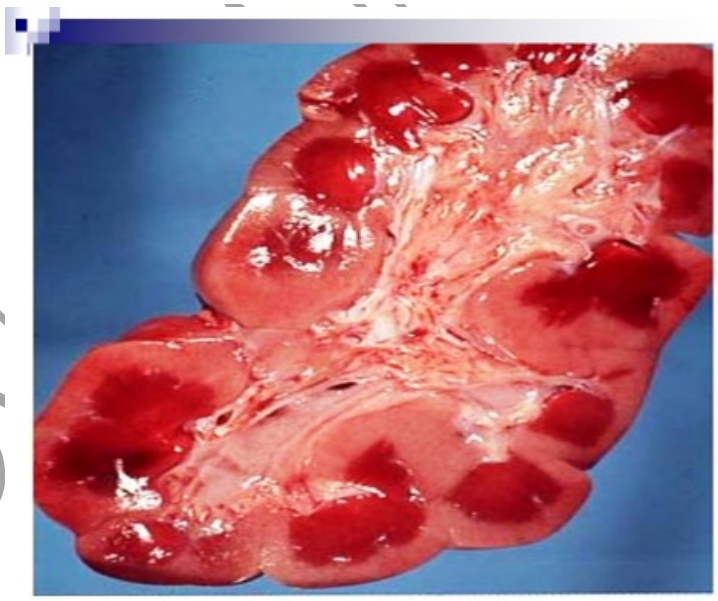


2 - Organ: Kidney(bovine)

Lesion: multiple area of hemorrhage in the renal cortex.

Etiology: *Leptospira hardjo bovis* .

Diagnosis: nephritis with hemorrhage.(leptospirosis).

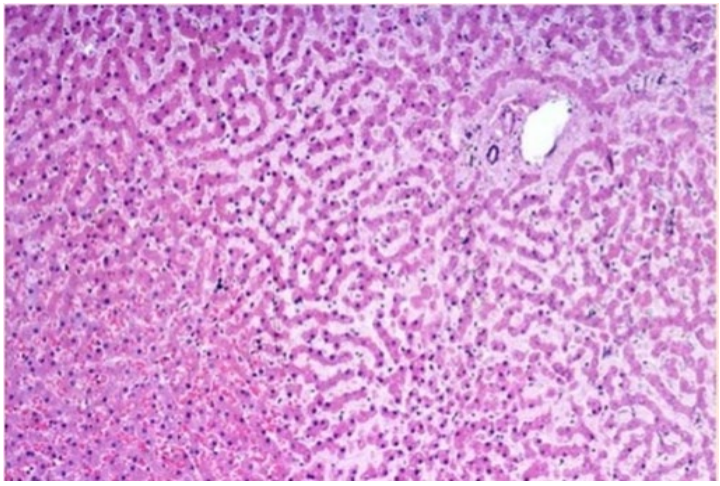


3 - Organ: Liver

Lesion: disorganization of the hepatic cord due to dilatation of sinusoids which lead to pressure atrophy of hepatic cord, also congestion of sinusoids.

Etiology: *Leptospira hardjo bovis* .

Diagnosis: leptospirosis.

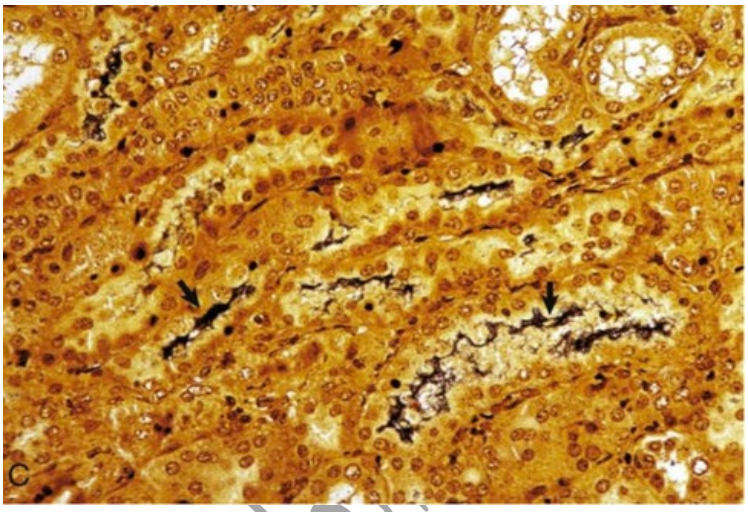


4 - Organ: kidney (Bovine).

Lesion: Numerous black colonies (Leptospira) are present in the renal tubules lumen . Leptospira colonize the tubular epithelial cell which is typical of these bacteria (Sliver stain).

Etiology: *Leptospira hardjo bovis.*

Diagnosis: leptospirosis.

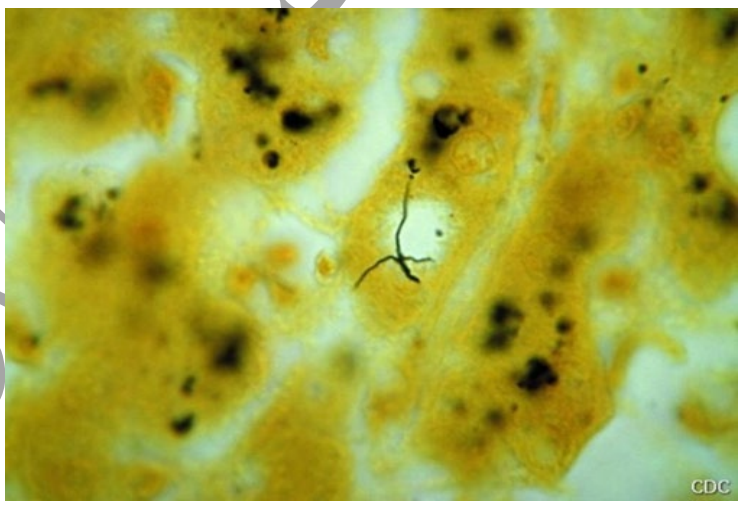


5 - Organ: kidney.

Lesion: A two spiral-like blac in color bacterial (spirochaete). (silver stain)

Etiology: *Leptospira spp.*

Diagnosis: Leptospirosis.



6 - Organ: (bacterial sample)

Lesion: Scanning electron micrograph (SEM) of the Gram-negative bacteria *Leptospira spp*. which appear as A number of rope-like bacteria are shown on the top of a 0.1 µm polycarbonate filter.

Etiology: *Leptospira spp.*

Diagnosis: Leptospirosis.

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