

COURSE SHEET: LEPTOSPIROSIS



DEFINITION

Leptospirosis is a bacterial zoonosis caused by *Leptospira* species. It affects various mammals, including domestic animals and humans.



EPIDEMIOLOGY



- Transmission through contact with water, soil, or food contaminated by infected animal urine.
- Main reservoirs: rodents, cattle, dogs, pigs.
- More common in humid and tropical areas.



CLINICAL SIGNS

- Fever, lethargy, anorexia
- Jaundice, vomiting, dehydration
- Kidney failure, hepatitis, hemorrhages

DIAGNOSTIC TESTS



Diagnosis is based on **serology** (agglutination techniques or ELISA). PCR can also be used. Blood and urine tests reveal abnormalities such as hematuria, proteinuria, hyperphosphatemia and, in some cases, blood disorders coagulation.

Biochemistry: increased urea, creatinine, TGP, PAL, SGOT, LDH and serum levels bilirubin. We can also observe hyponatremia, hypokalemia, hyperkalemia and hyperphosphatemia.

Hematology: leukocytosis, lymphopenia, monocytosis, thrombocytopenia.

Urinary sediment: presence of red blood cells, leukocytes, granular casts, isosthenuria, proteinuria and glucosuria.

Chest x-ray: diffuse micronodular pulmonary densification of interstitial type or alveolar. These images are probably associated with foci of hemorrhage pulmonary.

Abdominal ultrasound

TREATMENTS



COMPLICATIONS / PREVENTION

- Antibiotic therapy (penicillin (20,000 IU/kg) or doxycycline (5 mg/kg))
- Symptomatic treatment (fluidotherapy, anti-inflammatories)

- Kidney and liver failure, severe hemorrhages
- **Vaccination** available for dogs and cattle
- Rodent control, avoiding stagnant water