

Streptococcosis

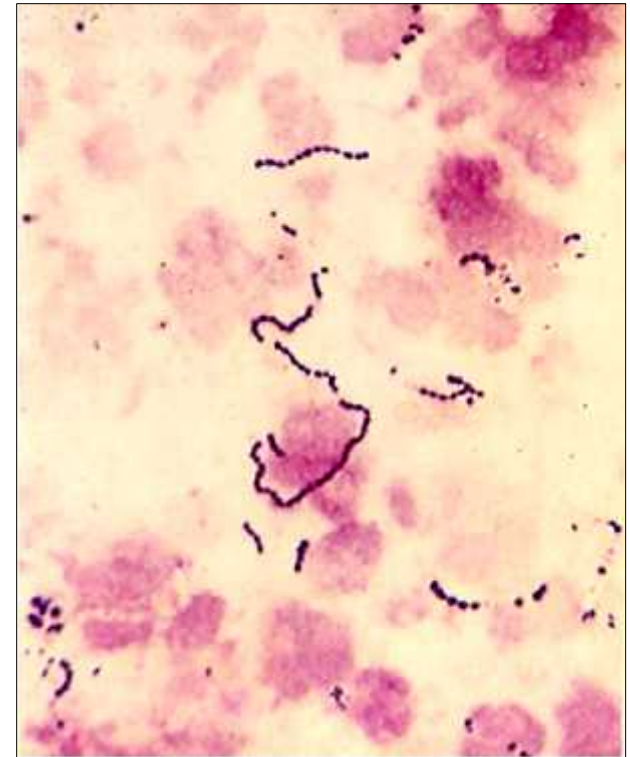
Streptococcosis

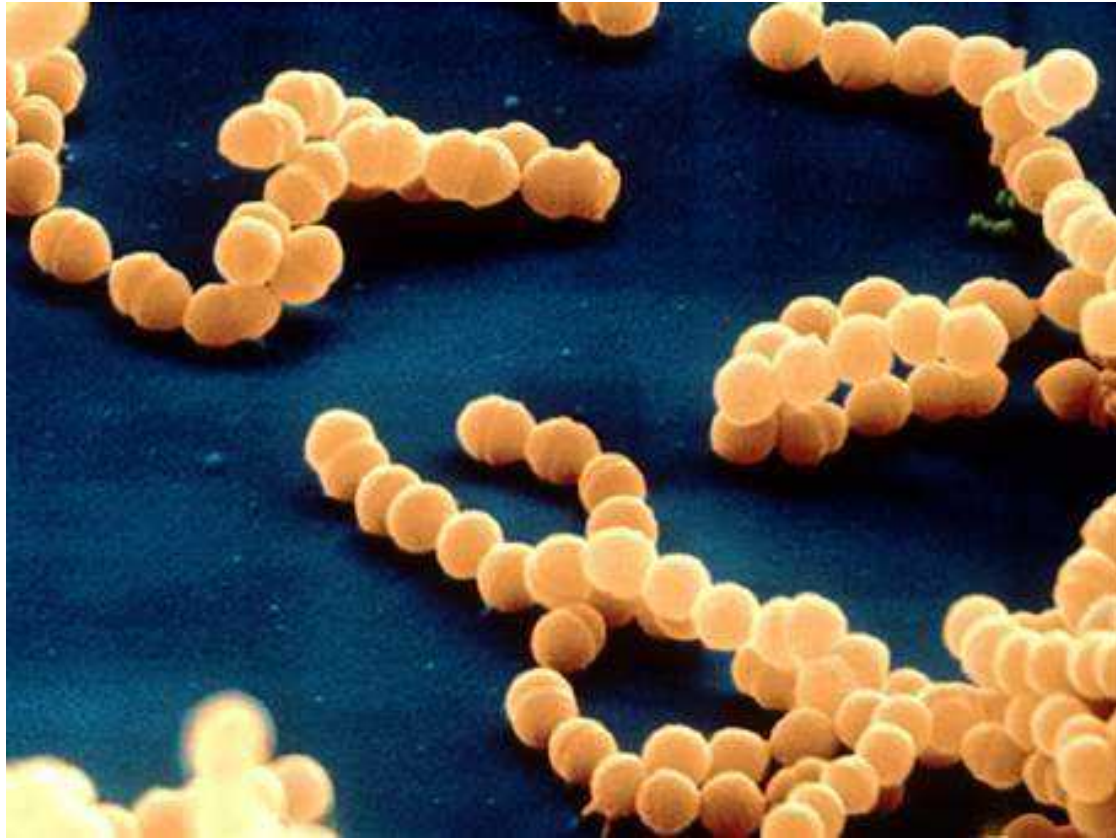
□ Definition:

- It is an infectious disease affect birds of any ages but more severe in embryos, young chicks and poults producing **acute septicemia or chronic infection**. Omphalitis is frequently occurring in young ages.
- Infections can be acute or subacute/chronic forms due to septicemia and can be effectively treated.

□ Etiology

- ***Streptococcus zooepidemicus*** is a Gram positive cocci, arranged in chains, non-motile, non-spore forming and facultative anaerobe.
- Catalase positive and sugar fermenter bacteria.
- It can grow on **MacConkey's agar**.





Streptococcus as seen in Scanning electron microscope

Mode of infection and transmission

- It is an intestinal inhabitant of birds and mammals.
- The infection occurs mainly via the oral or aerogenic route, but could also enter through the injured skin, especially in battery cage layer hens.
- Streptococcal infections usually occur secondary to other primary infections.

❑ Clinical signs

A. Acute form:

- Sudden death.
- Depression and ruffled feathers.
- Cyanosis of comb and wattles.
- Yellowish diarrhea and loss of body weight.
- Blood stained nasal exudates.
- Mortality rate vary between 0.5 and 50 %
- At egg hatcheries, there are late embryonic mortalities and reduced hatchability

B. Chronic form:

- Progressive loss of conditions, diarrhea, lameness, head tremors and torticollis.

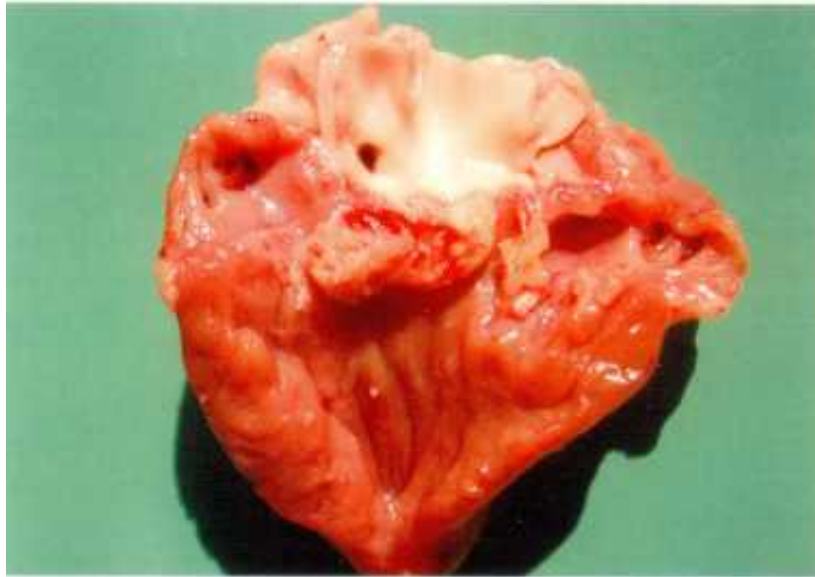
□ Gross lesions:

A. Acute form:

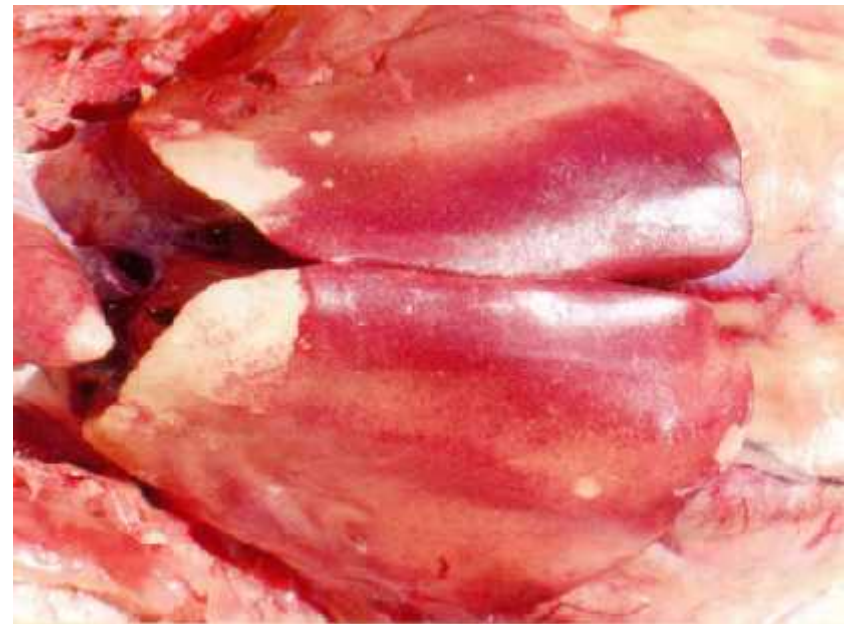
- Subcutaneous congestion.
- Hydropericardium and peritonitis.
- Enlarged liver, spleen and kidneys.
- Liver necrosis.

B. Chronic form:

- Dehydration, emaciation, arthritis, tenosynovitis and Salpingitis.
- Misshapen ova, pericarditis, perihepatitis and pneumonia.
- Vegetative endocarditis, myocarditis, Mild ascites.
- Other lesions related to endocardites, are heart, liver and spleen infarctions.



Liver infarctions are usually peripherally located on margins, have a pale creamy colour and are sharply demarcated



□ Diagnosis:

- Clinical signs and lesions.
- Demonstration of bacteria typical of streptococci in blood films.
- Isolation, identification, and biochemical testing.
- Differential diagnosis: it must be differentiated from *Staph*, *Eryseplothrix*, *Pasteurella*, and *E.coli* infections. *Culturing and microscopic identification is highly diagnostic.*

□ Control:

- Sanitation and sound management.
- Hatchery management.
- Reducing stress and preventing immunodepressive diseases and conditions.
- *In-vitro sensitivity test is necessary before treatment.*

□ ***Treatment***

- *Treatment Using one of the following:*
quinolones, penicillin, erythromycin and tetracyclines.