

Psittacosis and Ornithosis

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This is a disease of man and birds caused by an organism *Chlamydia psittaci* in man etiology is *Chlamydia trachomatis*. They are intracellular obligate parasites. Affected species: man, parrots, parakeets. The disease in man and psittacine birds is known as psittacosis. Transmission through pigeons, fowls, turkeys and ducks is known as ornithosis. Route of infections: inhalation, in birds- mites and lice may introduce infection through skin. Incubation period: 1 to 2 weeks. Pathogenesis of disease through inhalation the organisms are found in the epithelial cells of the lung, air sacs and pericardial membrane as elementary bodies which are known as Levinthal–Cole–Lillie (LCL) bodies, these are cellular inclusions, the elementary bodies on entry into a cell, become larger and form plaques. The large bodies divide repeatedly to become smaller which again infest other cells, organism entry into the blood stream then organism reach the spleen, kidney and liver. Symptoms in man: fever, chills, headache, malaise, sore throat and cough, pneumonia. In pigeons – morbidity is high, mortality is low. Lesions in man: patchy pneumonia which is confined to the interstitial tissue and alveolar walls. Swollen alveolar lining cells and proliferate reveal mitotic figures, desquamation of epithelial cells, edema and mononuclear cell infiltration. In birds: liver and spleen enlarged, the spleen is dark- red and soft. Proliferation of the reticulo endothelial cells. Icteric liver, pericarditis, conjunctivitis, rhinitis, bronchitis, catarrhal gastroenteritis, nephrosis. Levinthal Cole Lillie bodies can be seen in the cytoplasm of mononuclear cells in spleen and tubular epithelium of kidney. Diagnosis through examination of pericardial exudates, impression smear from liver stain by giemsa for LCL bodies. Inoculate white mice intraperitoneally after 5 to 10 days sacrifice the mice see postmortem lesions are fibrinous exudate is seen which contain the organisms. Inoculate 6-to-10-day old chick embryos, after 48 hours the embryo become dies, examine the yolk sac for organisms. Diagnostic tests are complementing fixation test, cross immunity and agglutination tests can be done.