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Research Article

A RARE CASE OF PULMONARY TUBERCULOSIS IN A SHEEP

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ABSTRACT
The present case report describes lung tubercular lesions in a slaughtered adult ewe, discovered during an abattoir study. Grossly lungs revealed, a few groundnuts sized grayish white firm nodules with caseous and calcified areas and cheesy material was observed within the nodules upon incision. Congestion and pleural thickening were also observed. Histopathological examination revealed granulomatous lesion with central caseation, calcification and pleural fibrosis along with sub pleural hemorrhages and congestion.

Keywords: *Pulmonary Tuberculosis, Sheep, Giant Cells*

INTRODUCTION
Tuberculosis in sheep is a very rare disease and it may be caused by *Mycobacterium bovis* or *Mycobacterium capriae* and few are caused by *Mycobacterium tuberculosis* (Cordes *et al.,* 1982). In addition to lung lesions, rarely the tubercular lesions also found in the liver and lymph nodes of various body parts.

The present paper describes about the gross and histopathological pulmonary tubercular lesions in an adult ewe discovered during an abattoir study.

MATERIALS AND METHODS
Detailed examination of were carried out and gross lesions were recorded.

Representative tissue samples were collected in 10% buffered neutral formalin and processed in 6 micron paraffin embedded section and stained with hemotoxylin and eosin (H&E) method for histopathological examination (Luna, 1968).

RESULTS AND DISCUSSION
Upon postmortem examination of carcass, ewe was severely emaciated and cachectic.

Lungs grossly revealed, Lesions of small military to groundnut sized grayish white firm nodules with extensive soft, caseous, calcified and encapsulated tubercles along with congestion and pleural thickening (Figure 1).

These lesions were in closed conformity to the observation of Ali and Abdel (1997).

Histopathological examination revealed, granulomatous lesions, characterized by necrotic areas surrounded by macrophages, lymphocytes, plasma cells, epitheloid cells and many langhan's giant cells with fibrous tissue encapsulation (Figure 2&3). Pleural fibrosis along with sub pleural hemorrhages and congestion were also observed.

Similar granulomatous pneumonic changes of lungs were reported earlier by Cinzia *et al.,* (2010) and Gazhegene *et al.,* (2012).

Conclusion
Tuberculosis is considered to be rare in sheep, may be affected with ovine or bovine or avian strains of mycobacterium.

Calcification and fibrous tissue encapsulation occurs early in sheep and goats. Pea nut sized grayish white tubercles on the lungs, granulomatous inflammation along with caseous calcification and presence of many Langhan's type of giant cells microscopically, confirms the present case as pulmonary tuberculosis.

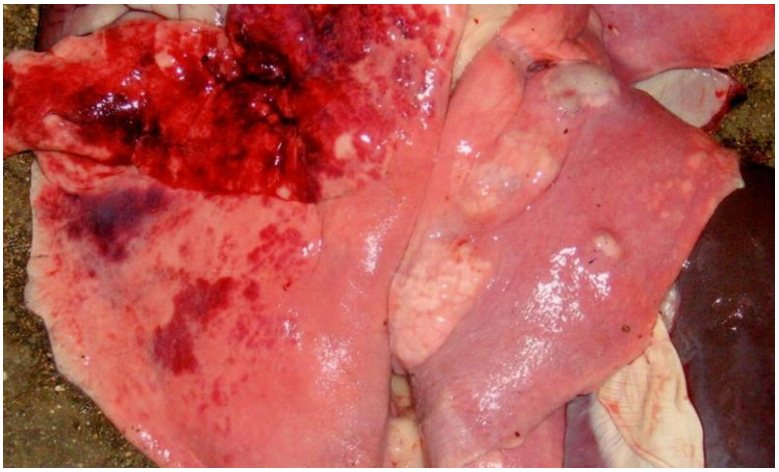


Figure 1: Left Side of the Lung Showing a Few Ground Nut Sized Grayish White Firm Nodules

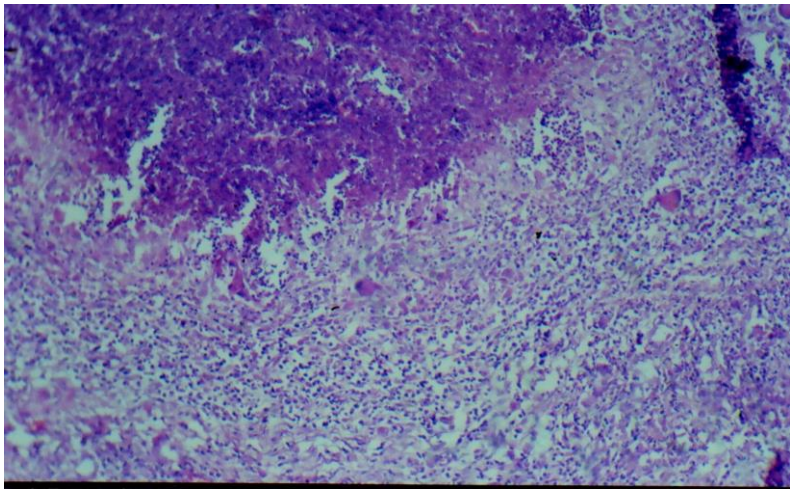
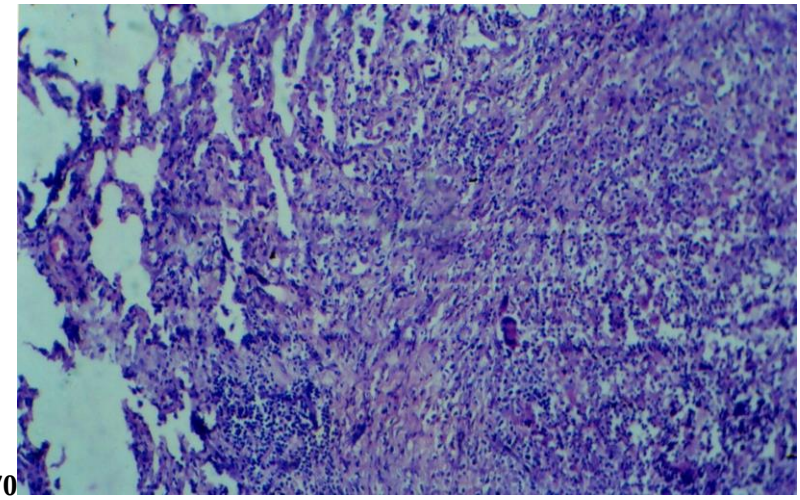


Figure 2: Note Granulomatous Nodules with Caseation and Calcification and Presence of Langhan's Giant Cells H&E



X70

Figure 3: Section Showing Presence of Langhan's Giant Cells and Lymphocyte Infiltration H&EX70

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