

A case report on Dystrophic calcification in goat

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Abstract

Ten goat lung samples were collected from Delapir slaughter house, Bareilly, Uttar Pradesh to diagnose the histopathological changes in grossly almost normal lungs of the goats. Out of these 10 samples one was showing the presence of calcified masses in lung on cut section and on histopathology calcification was evident along with the presence of characteristic giant cells and other MNCs (mononuclear cells). Other two of the lung samples were showing mild congestion, while rest of them were almost normal.

Keywords: mono nuclear cells; giant cells; calcification; lungs; goat.

Introduction

Goats are the main source of fiber, hide, milk, meat and thereby income to marginal farmers (Mir *et al*, 2013; FAOSTAT, 2010). But often most of the diseases can lead to loss to farmers in terms morbidity or mortality. Many bacterial, viral, parasitic diseases can affect goats (Samir *et al*, 2013). They are often affected with Fascioliasis infection (Kumar et al., 2015). Among all these, the diseases of respiratory system often led to a major threat to goat owners. It is among the most vital parts of our body and often prone to infections (Baba and Choudhary, 2008).

Materials and Methods

Ten lung samples of goat were collected from a nearby slaughter house Delapir in Bareilly, Uttar Pradesh. On gross examination of these ten samples only one showed hardening along with multiple calcified masses on cut section. The cut sections were gritty and quite hard in consistency. The two of the lung samples showed congestion of mild degree while the rest of the lungs were normal.

The lung pieces of approximately 5 mm thickness were collected and fixed in 10% buffered formalin. After proper fixation tissues were trimmed to 1.5-2 mm thickness. The tissues after trimming were washed in running tap water, dehydrated by ascending grades of alcohol, cleared by benzene solution and embedded in paraffin wax. Now the paraffinised tissues were cut down to a size of 3-5 micron and stained with hematoxylin and eosin (H&E) as per the protocol given by Luna, (1968).

Results

The affected lungs after macroscopic examination when subjected to histopathological examination revealed the presence of necrotic tissue along with the presence of characteristic giant cells. Along with giant cells some of the other cells of MNCs series were also evident which are indicative of some chronic infection like Tuberculosis (Fig. 1).

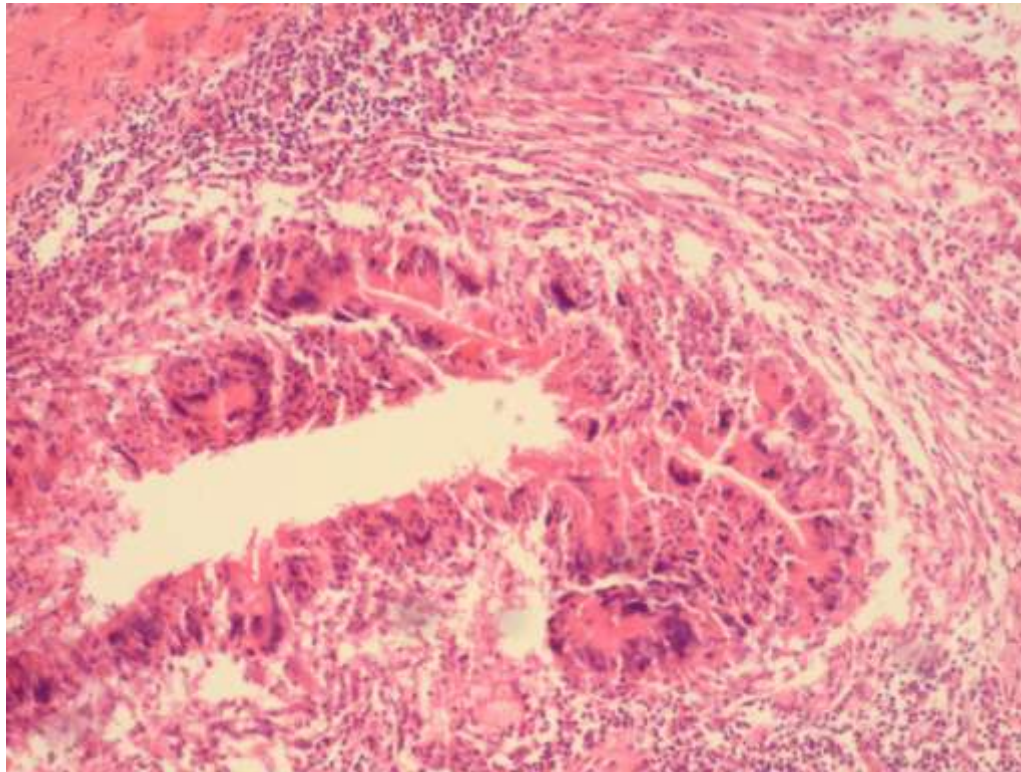


Fig 1. Lung tissue showing presence of areas of coagulative necrosis infiltrated with characteristic giant cells and MNCs. H&E *100

Conclusion

From present study, we can conclude that most of the lung tissues from different animals were apparently normal on gross examination, but one of the lung samples showed the presence of calcified mass and inflammatory cells on microscopic examination. Thus this study is reflecting more inapparent pulmonary infections in goats, which were not evident on clinical examination and were seen at the time of necropsy and microscopic examination. The animal showing the presence of characteristic giant cells in lung might be because of some chronic disease like Tuberculosis, but due to the lack of further confirmation only the pathomorphological diagnosis was possible. Thus regarding this incidental case the diagnosis supposed to be dystrophic calcification of lungs in goat.

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