

## Classification of Pneumonic Sheep Lung From Slaughterhouse According to Histopathology

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**Introduction:** Pneumonia is considered as one of the most common disease affecting sheep, Its responsible for major economic losses through high lamb mortality rates, reduced weight gain, condemnation of lungs in slaughterhouses, In addition to the cost of medical therapy and, vaccinations against infectious causes of pneumonia.

**Objectives:** The aims of this study is to determine the pathological classification of pneumonia in slaughtered sheep.

**Materials and Methods:** In this study, samples from 15 sheep showing lung lesions were collected regardless of the age or sex, Samples were collected from slaughter houses directly after slaughter and evisceration, In addition, portions from affected lungs lobes were sent in 10% formalin for histopathological examination.

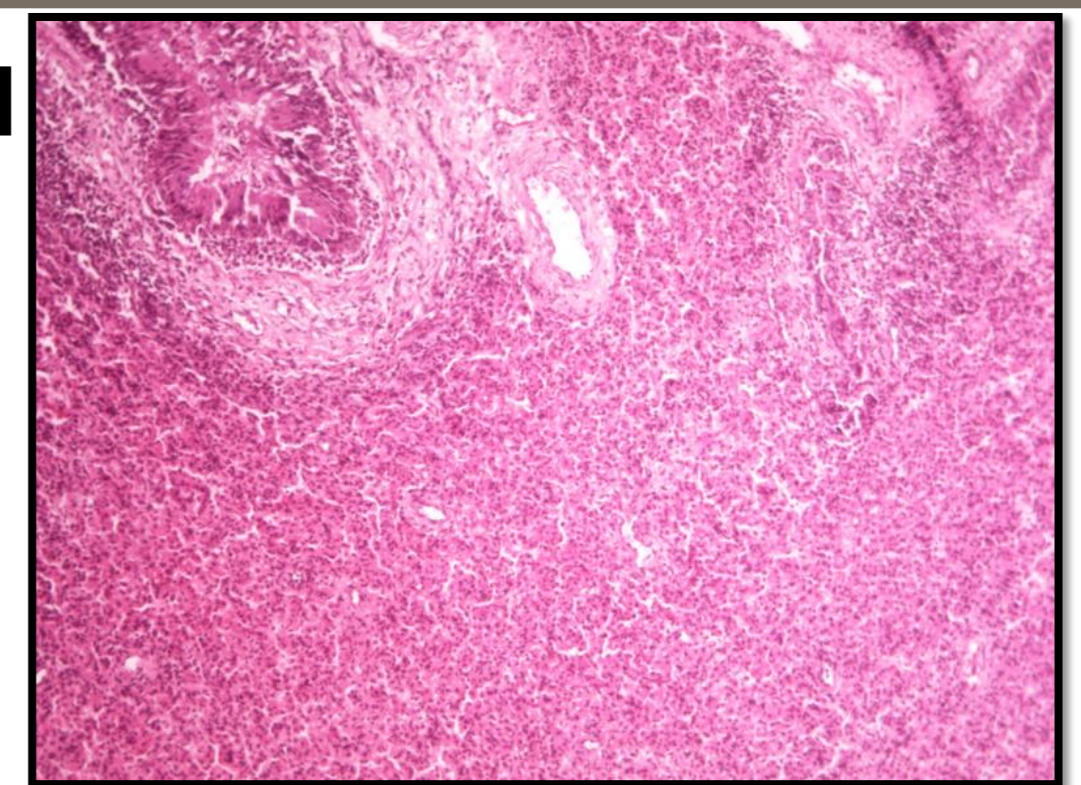
### Results:

The lungs of 15 sheep cases were affected at gross level by various types of pneumonia and pulmonary abscesses.

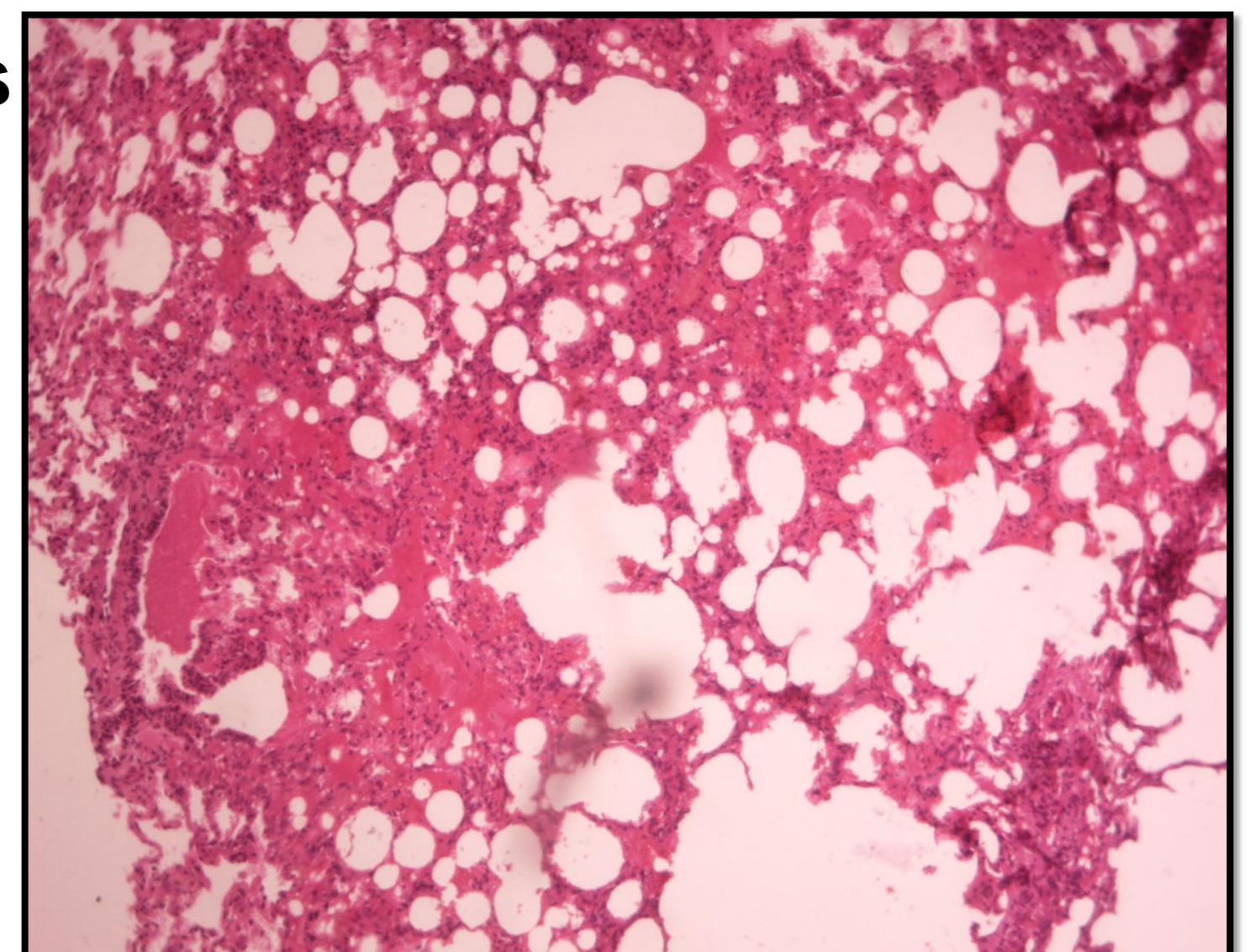
Pneumonias were classified into 3 subgroups according to their macroscopic appearances (texture, exudation and distribution of lesions) and microscopic findings .

Type of lesion	Number of affected animals
Interstitial Pneumonia	7 ( 46.6%)
Suppurative Pneumonia	5 (33.3%)
Embolic Pneumonia	1 (6.6%)
Granulomatous Pneumonia	2 (13.5%)

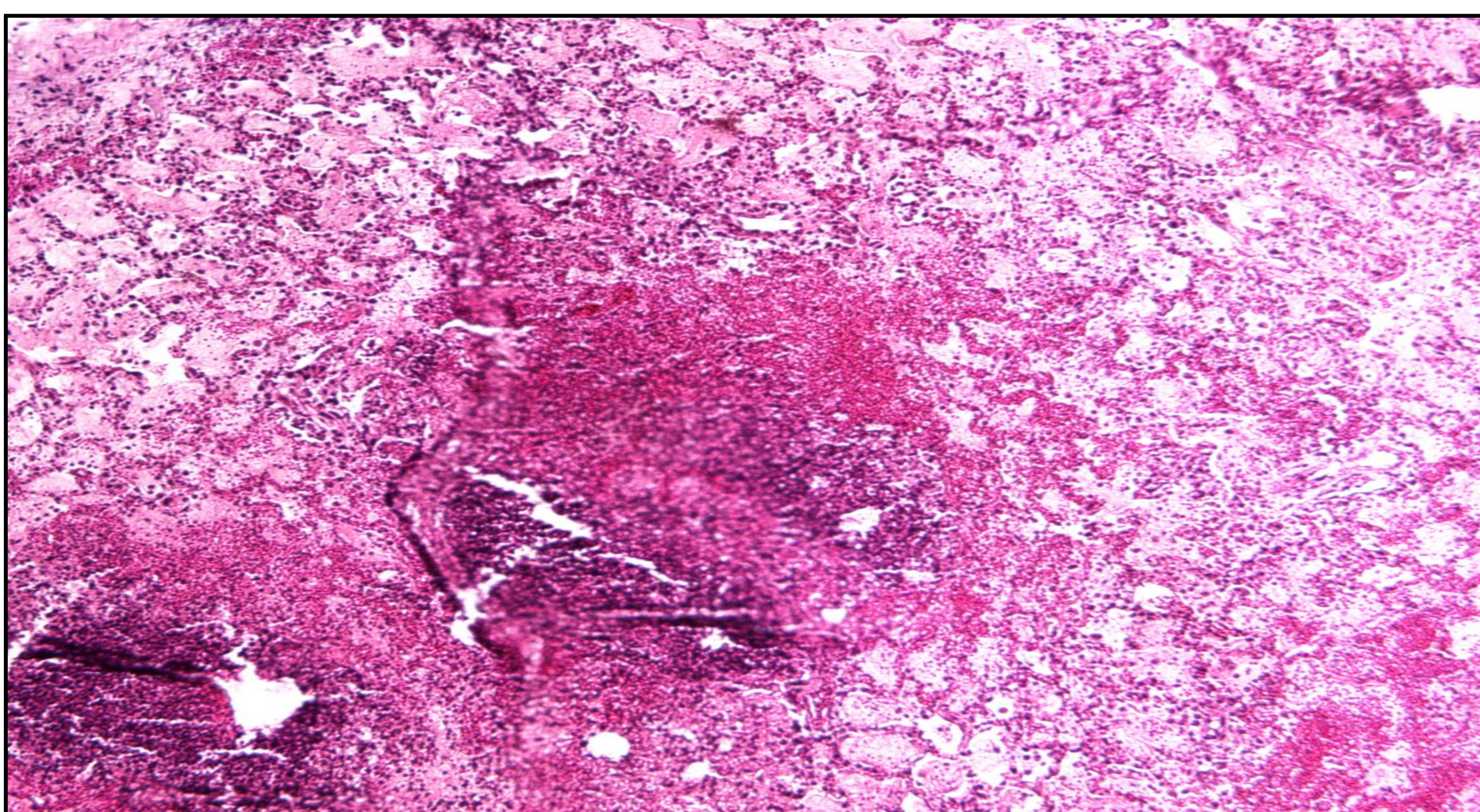
**Microscopic appearance of bronchopneumonia.** A neutrophil-rich exudates filling the alveolar spaces and lumens of the bronchioles and bronchi.



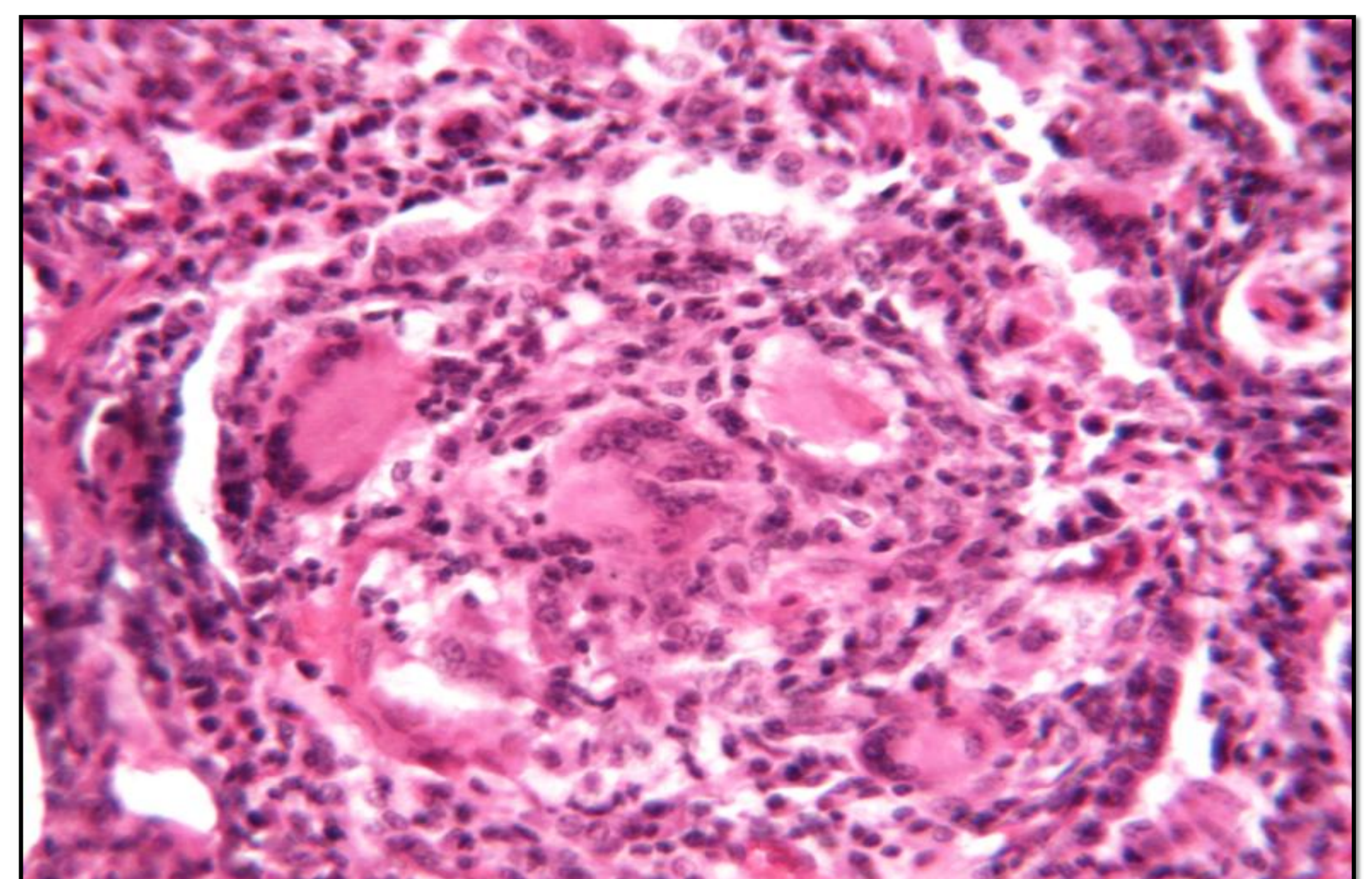
**Microscopic appearance of interstitial pneumonia** showed a marked increase in mononuclear cells and in the interalveolar septa. There was no exudate in the alveolar spaces and airways.



**Microscopic appearance of embolic pneumonia** showing multifocal aggregation of neutrophils mixed with large amount of cell debris and surrounded by areas of hemorrhage.



**Granulomatous inflammation.** Mixed populations of lymphocytes, macrophages and multinucleated giant cells (arrows) surround a necrotic focus



**Conclusion:** Suppurative and interstitial bronchopneumonia was the most common to occur in small ruminant and was the cause to reduce of weight gain, loss of production, and economic loss.