Some Studies on Bacterial Causes of Respiratory Manifestations in Small Ruminants

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Abstract:

This study was carried out on private flocks of sheep and goat in Dakahilia governorate, during December 2013 to February 2014, in which 140 head of sheep and goat were clinically examined, 35 sheep and 17 goats were suffering from a variety of respiratory manifestations. From each diseased sheep and goat, a double nasal swabs were taken for bacterial isolation and mycoplasma detection. Lung and liver samples were collected from 11 emergency slaughtered sheep and goats. Bacteriological examination of nasal swabs revealed isolation of Eschericia-coli spp. 12 isolates (23.07%), Staphylococcus aureus and Proteus vulgaris 5 isolates for each (9.61%), Streptococcus pyogene and Klebsiella pneumoniea. 4 isolates for each (7. 69%) and lastly Haemophilus parainfluenzae isolated from 3 nasal swabs. Bacteriological examination of lung and liver samples revealed isolation of S. aeurue from 6 samples and S. pyogenes from 7 samples, E-coli isolated from 5 samples and H. parainfluenzae from 2 samples. Mycoplasma gene (16srRNA) was detected in 20 nasal swabs out of 52 examined ones and not detected in lung samples using PCR technique. Histopathological examination revealed, fibrinous bronchopneumonia and neutrophilic infiltrations, necrosis of pulmonary tissue, severe inflammatory reactions with pulmonary emphysema which indicated predominance of bacterial infections and necrosis of hepatic tissue, whatever, it encountered of numerous caseated and purulent materials encircled by fibrous capsules reflected the high virulence of infectious agents. From this study, it can be concluded that bacterial causes of pneumonia in sheep and goats are numerous and should be differentiated, also mycoplasma has a main role in respiratory problems in small ruminants which could be detected directly from suspected samples using PCR.

Keywords:

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