Microbiological and Epidemiological Studies on Sheep and Goat Deaths in New Valley Governorates, Egypt

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Abstract:

This study was carried out on four flocks of sheep and goats in New Valley governorate in July and August, 2015 in which 154 sheep and goats were dead in these two months after a short course of respiratory signs. It was noticed that the rate of deaths was higher in sheep (71.43%) than in goats (28.57%) and Flock (3) located in Shrq Aleuaynat district showed the highest rate of deaths by 15%. In addition, the highest rate of deaths occurred in age group (8 month) (38.31%) followed by age group (2 month) (25.975%) then the age group (6 month) (24.68%). Postmortem examination (PM) showed that the lesions were restricted to the thoracic cavity where lungs were firm, congested and lobulated with presence of straw fluid in the thoracic cavity with congestion in heart muscles and liver. Bacteriological examination of samples obtained from 13 freshly dead sheep and goats revealed the isolation of 10 isolates of Staphylococcus aureus, 3 isolates of Escherichia coli and 6 isolates of Klebsiella pneumoniae from samples of lung and liver tissues while no isolation was recorded from thoracic fluid, heart tissue or heart blood. PCR technique succeeded in detection of M. ovipneumoniae in two lung samples out of 9 samples at percentage of 22.22%. On contrary, Pasteurella Multocida could not be detected by either traditional culture or PCR technique in the examined samples. Antibiotic sensitivity test revealed that the recovered bacterial isolates were highly sensitive to tulathromycin followed by ciprofloxacin (CIP) while they were less sensitive to tetracycline (TE). Finally, it was concluded that M. Ovipneumoniae may be accused in increased death rates in sheep and goats flocks in New Valley governorate with other bacteria. In addition, it was the first recording of M. Ovipneumoniae in New Valley governorate and further epidemiological studies needed to determine the risk factors associated with occurrence of infection. It was suggested that Tulathromycin should be given to treat respiratory manifestations in sheep.

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