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Title:
Pathological Study of The Sheep's Lungs

Abstract:

This study investigated to existence gross and microscopic pulmonary lesions of the sheep's lungs in Southern Iraq. The grossly affected lungs of sheep 220/700 with unknown history case and different ages were collected from freshly slaughtered animals at the Basra province abattoirs and examined grossly and histopathologically. The main causes of lung condemnation were Hemorrhage & congestion (19.5%),hydatid cysts (18.1%), emphysema (16.3%), hepatization (15.9%), solidation (11.3%), fibrosis (7.2%), congestion & Solidation (4%), abscesses (3.1%),edema(2.7%),lung tumor(1.3%) and tuberculosis(1.3%). The lungs of 220 sheep carcasses were subjected to bacterial isolation particularly klebsiella pneumonia. k. pneumonia is one of the most commonly of bacterial pneumonia associated with respiratory diseases in sheep. Isolates 30 / 220 were identified as klebsiella pneumonia (13.6%). The objective of this study was focus on genetic and phenotypic properties that correlating to virulence factors associated with pathogenicity of K. pneumoniae. polymerase chain reaction (PCR) based 16S RNA gene sequences which used for identified of K. pneumoniae in pneumonic lungs of slaughtered sheep. Genotyping of these isolates were carried out by using K1, K2 specific PCR primers by using the primer specific for the capsule cluster gene magA and k2A (K1and K2 serotype) respectably. The pathologic findings associated with K. pneumoniae for (30) isolates were including (1) suppurative bronchopneumonia (36.6 %), (2) Interstitial pneumonia (30%), (3) Bronchointerstitial pneumonia (13.3%), (4) Pleuritis with pulmonary edema (10%) and (5) Pulmonary abscesses (10%). PCR technique showed that 19 isolates were positive to K1 serotype, 8 isolates to K2 serotype and 3 isolates were (Non-K1/K2). These results propose that magA and k2A genotype useful marker to identify capsule serotypes of K1 and K2 of K. pneumoniae and these serotypes have been more prevalent than that were neither K1 nor K2 (Non-K1/K2) and also K1 serotypes more prevalent in pneumonia of sheep in Iraq.