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Histological and Microbiological Study about the Pneumonic Lungs of Calves Slaughtered in the Slaughterhouse of Batna

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Abstract : Respiratory disease is a dominant pathology in cattle. It causes mortality and especially morbidity and irreversible damage. Although the dairy herd is affected, it is essentially the lactating herd and especially young cattle either nursing or fattening that undergo the greatest economic impact. The objective of this study is to establish a microbiological diagnosis of bovine respiratory inffections from lung presented with gross lesions at the slaughter of Batna. A total of 124 samples (pharyngeal and nasal swabs and lung fragments) from 31 seven months old calves, with lung lesions was collected to determine possible correlations between etiologic agents and lesion types. The hépatisation injury (or consolidation) was the major lesion (45.17%) preferentially localized in the right apical lobe. A diverse microbial flora (15 genera and 291 strains was isolated. The bacteria most frequently isolated are the Enterobacteriaceae (49.45%), Staphylococci (25.1%) followed by non Enterobacteriaceae bacilli represented by Pseudomonas (5.83%) and finally, Streptococcus (13.38 %). The pneumotropic bacteria (Pasteurellaaerogenes and Pasteurellapneumotropica) were isolated at a rate of 0.68%. The study of the sensitivity of some germs to antibiotics showed a sensitivity of 100% for ceftazidime. A very high sensitivity was also observed for kanamycin, Ciprofloxacin, Imepinem, Cefepime, Tobramycin and Gentamycin (between 90% and 97%). Strains of E. coli showed a sensitivity of 100% for Imepinem, while only 55.9% of the strains were sensitive to Ampicillin. The isolated Pasteurella exhibited excellent sensitivity (100%) for the antimicrobials used with the exception of Colistin and Ticarcillin-Clavulanic acid association which showed a sensitivity of 50%.This survey has demonstrated the strong spread of atypical pneumonia in cattle population (bulls) at the slaughterhouse of Batna justifying stunting and losses in cattle farms in the region.Thus, it was considered urgent to establish a profile of sensitivity of different germs to antibiotics isolated to limit this increasingly dreadful infection.

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