

Clinical and Molecular Characterization of Mycoplasmosis in Sheep in Egypt

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Abstract : Mycoplasmosis in small ruminants constitutes a serious contagious problem in smallholders causing severe economic losses worldwide. This study was conducted to determine the clinical, Minimum Inhibitory Concentration (MIC) and molecular characterization of Mycoplasma species associated in sheep breeding herds in Menoufiya governorate, Egypt. Out of the examination of 400 sheep, 104 (26%) showed respiratory manifestations, nasal discharges, cough and conjunctivitis with systemic body reaction. Meanwhile, out of these examined sheep, only 56 (14%) were positive for mycoplasma isolation onto PPLO (Pleuropneumonia-like organisms) specific medium. The MIC for evaluating the efficacy of sensitivity of Mycoplasma isolates against different antibiotics groups revealed that both the Linospectin and Tylosin with 2ug, 0.25ug/ml concentration were the most effective antibiotics for Mycoplasma isolates. The application of PCR was the rapid, specific and sensitive molecular approach for detection of *M. ovipneumoniae*, and *M. arginine* at 390 and 326 bp, respectively, in all tested isolates. In conclusion, the diagnosis of Mycoplasmosis in sheep is important to achieve effective control measures and minimizing the disease dissemination among sheep herds.

Keywords : MIC, mycoplasmosis, PCR, sheep

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