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## Molecular and serological methods application for the diagnosis of avian mycoplasmosis in Kuwait poultry industries

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Mycoplasma has a wide distribution in nature, they lack the cell wall and they include important pathogens of animals, plants insects and human. It is difficult to diagnose the Mycoplasma infection based on symptoms alone, therefore a faster and more specific method is needed because of the difficulties of culturing them in laboratory. The objective of this work was to detect avian Mycoplasmosis using PCR diagnostic kit (VenoMGs) and Enzyme Linked Immunosorbant Assay (ELISA) diagnostic kit (ProFLOK) in comparison to culture method. Two advanced techniques were applied: The results obtained from Polymerase Chain Reaction (PCR) technique were compared with serological detection method using ELISA, to study the spread of this disease in sample from broiler and layer flocks. Fifty bird samples were tested for Mycoplamosis. 25 positives (50%) were from ELISA test and 29 positives (58%) from PCR, where only 7 were positive (14%) with culture methods. Swab samples obtained from the choanal cleft gave more positive (60%) with PCR than tracheal samples (56%) and cultures were grown in broth media with a pH indicator. Rapid, sensitive and specific tests that detect nucleic acid from pathogenic Mycoplamas are very attractive for the laboratory detection of infected flocks, and methods reported here are of high sensitivity and specificity for Mycoplasma. The use of these methods for surveillance of the disease will establish data concerning the predominant Mycoplasmosis diseases in Kuwait and improves the veterinary medical service in Kuwait.

## **Biography**

Ebtesam H M Al-Ali has completed her BSc degree at 1993 from Kuwait University and joined the work as Scientific Researcher at Kuwait Institute for Scientific Research with the molecular genetics group. She led 5 completed projects and has published more than 7 papers in reputed journals and international conferences.

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