



An outbreak of hemorrhagic septicemia in a vaccinated herd of domestic water buffalo in Thi Qar province, Iraq: Clinical and pathological observations

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Abstract

An outbreak of hemorrhagic septicemia (HS) with a 100% morbidity and 27.5% mortality was reported in a herd of domestic water buffalo (*Bubalus bubalis*) at

Thi Qar / the south west of Iraq. This herd was vaccinated against the disease 45 days prior to transportation into Thi Qar province. The disease was diagnosed based on clinical signs (fever, nasal and ocular mucus discharges, profuse salivation, dyspnea, abnormal respiratory sounds “rales” and restlessness). *Pasteurella multocida* was isolated from the lungs of dead animals. The postmortem examination revealed edematous swelling of the neck, brisket and sub-mandibular regions; frothy exudate in congested trachea; widely distributed petechial hemorrhages; blood-tinged fluid in the thoracic and abdominal cavities, in addition, to enlargement and hyperemia of kidney. Histopathologically, there were distention of alveolar spaces and inter-alveolar connective tissue septa by inflammatory exudate consisting mainly of fibrin, edematous fluid, RBCs and inflammatory cells particularly polymorphonuclear cells (PMNs). In addition, the bronchial and bronchiolar lumens were filled with mucinous exudate and inflammatory cells. Thickening of pleura was also observed due to the pleuritis as indicated by the presence of sub-mesothelial fibrinous exudate, inflammatory cells and blood vessels congestion.

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