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A Preliminary Clinical Laboratory Investigation of Endemic Spiking Mortality Syndrome of Broiler Chickens in Nepal

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Abstract

During the period of March April May 2008 first time a sudden and unexpected jump in mortality in Broiler of 8 to 16 days of age was reported from broiler farms from Chitwan and Kathmandu valley in Nepal. Affected birds become recumbent, depressed and often go into a star gazing spasm. Those signs included, huddling of the birds, trembling, blindness, loud chirping, litter eating, ataxia, comatose, birds dead with breast down and feet and legs straight out behind birds. Death within two to six hours after the onset of the symptoms Postmortem Lesions found with this syndrome include hemorrhages in the liver with necrosis of liver cells, regressed thymus, regression of the bursa of Fabricius, dehydration with the accumulation of kidney urates, fluid in the crop, fluid in the lower gut and watery contents of the ceca. Yellow elastic shanks swollen joints. Molted appearance of brain. . The mortality lasted for three to five days, after which, the mortality patterns return to a relatively normal level. When treated with liquid toxin binders like toxol, toxolivum, livertonic like hepatocare, naturaliv, immunomodulators like immunocare, promin, pentasol and antibiotics there was check in mortality but the body weight recovery was not satisfactory only half as in comparison of in other illness. During this period laboratory culture of total 298 tissue specimen from dead bird was conducted which revealed growth of fungus spp like *Aspergillus* and *Penicillium* in 182 specimen while mixed *E.coli* and *Staphylococcus* were recovered in 68 specimen 24 specimen revealed the growth of *Salmonella* spp of bacteria and 24 samples were turn out to be negative while the attempt to isolate the Avian encephalomyelitis virus as it might be the cause suspected also turnout negative. On the basis of all laboratory findings and response to the treatment attempted finding of this preliminary investigation work is suggestive that the above syndrome indicates that mycosis emerging as one of new challenge for the early age broiler health management need to be thoroughly further investigated.

Key Words: Spiking Mortality Syndrome, Early Broiler chicken, Fungus, *Aspergillus*, *Penicillium*, Liquid Toxin binder, avian encephalomyelitis.