

LYMPHOID LEUKOSIS IN CHICKEN: A CASE REPORT

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Lymphoid Leukosis (LL) is a lymphoproliferative disease resulting in visceral lymphomas in chicken caused by the Avian Leukosis Virus (ALV), and is transmitted vertically through the egg and horizontally by saliva and faeces. Lymphoid Leukosis is not clinically manifested in most flocks but varying non-specific symptoms like diminished appetite, severe emaciation, decrease or cessation of egg production, greenish diarrhoea, pale and shrunken comb, and sporadic death patterns have been observed. Generally, the birds older than 16 weeks are affected, and in most cases, the disease occurs following the onset of sexual maturity, causing heavy losses to the farmer. Lymphomas develops mostly in the liver and bursa of Fabricius, and to a lesser extent in the kidneys, spleen, ovaries, and bone marrow. In addition, ALV causes immunosuppression and also exposes the birds to other secondary infections like Chronic Respiratory Disease and Colibacillosis.

A bird from a 26 week-old commercial layer flock was presented for diagnosis. A history of diminished appetite, stunted growth, severe emaciation, drop in egg production, sudden onset of paralysis, greenish diarrhoea, and sporadic death patterns were observed in the farm. *Post mortem* examination revealed the presence of several smooth yellowish- white neoplastic growths ranging from 0.2 - 2.5 cm in diameter and distinct borders in the liver, and also with enlarged bursa of Fabricius. This extensive growth also resulted in compression and displacement of the normal tissues of the liver and the bursa of Fabricius. On a cut surface, the tumours appeared round with clear demarcation from normal tissues. Histologically, the tumours showed sheets of large immature lymphoblasts with little or no pleomorphism.

Based on history, clinical picture, *post mortem* findings, and histopathology, the case was diagnosed as a diffused type of Lymphoid Leukosis. The farmer was advised to cull the entire flock and re-populate the farm with chicks obtained from ALV free flocks.