# Circulation of Chicken Anemia Virus Among Poor-Performing Broiler Flocks in Kurunegala District

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Chicken Anaemia Virus (CAV) infection is a well-known immunosuppressive disease that can increase the susceptibility of chickens to other disease-causing pathogens and even interfere with the efficacy of vaccination against those pathogens. This study was carried out to determine the presence of CAV infection in sick/ poor-performing broiler farms through conventional PCR. Four, medium to large-scale broiler farms in Kurunegala district with higher mortality rates were randomly selected for the study. Tissue samples were collected from recently dead birds during postmortem examinations. Thymus samples were collected and stored at -20 $^0$C for downstream molecular biological studies. Total DNA was extracted from twelve selected thymus samples using the QIAGEN DNAeasy® mini kit. Conventional PCR targeting 186 bp fragment of the highly conserved VP2 coding gene of the CAV was performed using the CAV1: 5'-GCA GTA GGT ATA CGC AAG GC-3' and CAV2: 5'-CTG AAC ACC GTT GAT GGT C-3' primers. The CAV vaccine was used as the positive control. The PCR products were analyzed by electrophoresis in 1.5% agarose gels and images were captured. Nine out of the twelve samples tested were positive for CAV. At least one thymus sample was positive for CAV in all four farms. This study showed that CAV is perpetuating in the broiler farms in Kurunegala district that was subjected to our study. This emphasizes the importance of improving CAV vaccination and controlling programs to prevent CAV in broiler farms.

**Keywords:** Chicken anemia virus, Immunosuppression, Broiler chickens

*Acknowledgement: "URG/2021/43/V" University research grant*