

OCURRENCE AND PATHOLOGY OF ASCITES AND RIGHT VENTRICULAR FAILURE IN BROILERS: A PRELIMINARY STUDY

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Ascites and Right Ventricular Failure (ARVF) is a metabolic disease of fast growing broiler chicken which is associated with multitude of factors such as genetic selection, high quality feed, high altitude and increased sodium content in feed and water. The disease is clinically evident from the age of one month onwards and is characterized by distension of the abdomen, dispnoea, cynosis, reluctance to move, and a poor growth rate. The mortality in ARVF is variable but it can be as high as 25%.

Although cases of ARVF has been observed in Sri Lanka there had been no systematic investigations performed on the occurrence of the disease and the associated lesions. In the present study, these aspects have been examined in a population of adult boilers of 35 to 38 days old reared in the mid-country region of Sri Lanka.

A total of 15,116 birds were examined over a two-month period at a broiler processing plant. Birds with gross lesions characterised by abdominal distensions with fluid were collected prior to evisceration. The selected carcasses (de-feathered) were subjected to detailed post-mortem examinations and data were collected on carcass weight, sex, characteristics of the pericardial and ascitic fluid, and changes in the heart, lung and liver. For purposes of comparison, similar data were also obtained from 146 apparently healthy carcasses of adult birds.

ARVF was observed in 24 birds (0.16 %). The most prominent lesions were the accumulation of increased quantity of yellow to amber coloured ascitic fluid (14 – 140 ml), which often contained fibrin clots and flakes. The gross lesions in the lungs included severe congestion and oedema. The pericardial cavity was distended with a variable volume of clear to straw coloured fluid (1 – 12 ml) and there was marked dilatation of the right ventricle. The liver of diseased birds was found to be enlarged and fibrinous deposits were present on the capsule. The carcass weight of the affected birds was lower (mean \pm sem; 1136 ± 47.1 kg) than the unaffected ones (1295 ± 14.8 kg). Among the affected birds, the occurrence of the disease was significantly high in males (66.6 %) compared with the females (33.3 %).

Studies are also in progress to determine the prevalence of the disease at different times of the year and to identify the aetiological factors responsible for ARVF in Sri Lanka.