Results and Discussion

Statistical analysis of data on carcass characteristics showed significant (P<0.05) difference in gizzard and abdominal fat weight among the treatment groups. The T5 and T4 treatment groups recorded significantly (P<0.05) higher gizzard weight (2.45%) and abdominal fat weight (1.13 %) percentages which is lower than the value as reported by Hake et al. (2005).

It is observed that total breast and thigh muscle cholesterol content (mg %) have shown no significant difference among the treatment groups. Similarly, the statistical analysis of variance of data on extract release volume (ml) showed non significant difference among the treatment groups. Among the treatment groups, the T2 (34.60 ml) group recorded higher extract release volume than other groups.

Based upon this study, it can be concluded that supplementation of Basal diet + groundnut oil combined with fish oil (T3) will lower the breast and thigh muscle cholesterol level in broilers.

References


reduced feed and water intake were selected for this study. Blood samples collected from these animals were analysed for complete blood cell counts by using Vet Scan HM2, USA. Blood smears were prepared, stained with Giemsa stain and examined for the presence of blood protozoan. Fine needle aspirates obtained from swollen lymph nodes were used to prepare FNAC smears. The smears were air-dried, fixed in methanol and stained with Wright’s-Giemsa stain.

Results and Discussion

Clinical examination of the cows revealed the pale mucous membranes, increased temperatures (39.8 to 41.9°C), decreased capillary refill time (1-2 per sec) and minimal to severely enlarged lymph nodes. In addition, dyspnoea, weak pulse, tachycardia, panting, mild salivation, decreased milk yield and reduced feed and water intake were also noticed. The mean haematological parameters such as red blood cell count (3.37x10⁶/cmm), packed cell volume (17.68%), haemoglobin (5.79 g/dl), white blood cell count (9.91x10³/cmm), neutrophil (41.05%), lymphocyte (58.47%), monocyte (2.05%), eosinophil (0.32%) and basophil (0) showed that the animals were affected with anaemia.

In bovines, anaemia generally occurs due to the blood protozoan disease, ecto-endoparasites and nutritional deficiency. Anaemia recorded in the cows of the present study is due to the presence of blood protozoan agreed with the previous reports (Radostits et al. 2000). The type of anaemia observed in this study is microcytic hypochromic might be due to deficiency of iron and copper, liver dysfunction, bone marrow depression and toxic destruction of erythrocytes (Katoch and Mandial, 2003). Liver dysfunction causes the impaired metabolism of essential minerals, vitamins and proteins required for the synthesis of erythrocytes and haemoglobin (Katoch and Mandial loc. cit.).

Five cows were diagnosed as theileriosis (Fig. 1) based on the presence of Theileria annulata in the blood smear and KBB in the lymph node biopsy (Fig. 2). Though all breeds

Fig 1. Presence of Theileria annulata in the erythrocytes of blood smear from Jersey cow. Giemsa stain x1000.

Fig 2. FNAC of lymph node revealed Koch’s Blue Bodies within as well as outside of the lymphocytes. Giemsa stain x1000.

Fig 3. FNAC of swollen lymph nodes revealed homogenous pattern of lymphocytes. Giemsa stain x1000.
of cattle are equally susceptible to theileriosis, the purebred, exotic and cross breds are highly susceptible to this disease is agreed in this study (Khan et al. 2011). In addition to the other clinical signs the anaemia was more severe in these animals were also agreed with earlier reports (Khan et al. loc. cit.).

Three cows were diagnosed as RLH. The differential leucocyte counts of these animals showed leucocytosis, lymphocytosis and neutropenia. FNAC of lymph nodes from these cows revealed increased cellularity consisting of mostly lymphocytes and few lymphoblasts (Fig. 3). The RLH is a benign and reversible enlargement of lymphoid tissue due to antigen stimulus corroborated in the current study (Ioachim and Medeiras, 2009). Earlier reports stated that this is a common pathologic finding from fine needle aspirates of lymph nodes is also agreed in this study (Bruce et al. 2010).

References

Pathological Features of Swollen...