Haematological and electrolyte alterations in anaemic cows

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The aim of this study was to ascertain the changes in haematology and serum electrolytes in the anaemic
cross bred cows. A total of 50 cross bred cows of age 2-5 years were included in the study. Twelve animals of same age were kept as healthy controls. Cattle were screened for anaemia on the basis of packed cell volume. The screening showed that 12 (24.00%) of cattle were anaemic. The other Haematological parameters that were measured including packed cell volume (PCV), total erythrocyte count (TEC), mean corpuscular volume (MCV), mean corpuscular haemoglobin (MCH) and mean corpuscular haemoglobin Concentration (MCHC). Levels of Hb, PCV, TEC, MCV, MCH and MCHC in anaemic cattle were 6.75±1.41 g/dl, 22.44±5.76%, 4.46±1.13x10⁶/µl, 51.56±13.34fl, 60±3.66 pg and 31.18±6.2 g/dl respectively. Haematological values of Hb, PCV, TEC, MCV, MCH and MCHC were significantly (p < 0.05) lower in anaemic cattle compared to non-anaemic cattle. Comparisons of electrolyte balance in this study showed significant decrease in Na and Ca concentrations of anaemic animals when compared to the control group. However, differences in pH, K and Cl levels were not significant. Data were statistically analyzed as per the standard method.