ABSTRACT

The present investigation was conducted on 59 cattle presented with history of hematuria at clinical camps held at Sainj valley of district Kullu, Barot and Janjheli valley of district Mandi. Enzootic bovine hematuria (EBH) is prevalent in Kullu,Mandi, Shimla, Chamba and Sirmour districts of Himachal Pradesh. Maximum incidence of EBH was reported in age group of 2 to 8 years (34 cases, 57.62%). Males (50.84%) were equally affected as females (49.15%). Breed wise, maximum cases of hematuria were recorded in Zebu cattle (64.40%) followed by Jersey-cross (30.50%) and Holstein Friesian (5.08%). The prominent clinical signs were voiding of blood stained urine, pale visible mucous membranes, mild tachycardia (76.47 ± 1.39 per min), general debility, depressed rumen motility (1.79 ± 0.05 per 2 min) with normal appetite. Haematological examination revealed significantly low haemoglobin(7.59 ± 0.20 g/dl), packed cell volume (25.28 ± 0.71%), total erythrocyte count (4.61 ± 0.13×10⁶/µl), mean corpuscular volume (55.19 ± 0.84 fl) and mean corpuscular haemoglobin (16.58 ± 0.21 pg) values indicating microcytic hypochromic anaemia. Leucopenia (5.64 ± 0.29×10³/µl), lymphopenia (53.16 ± 1.61%) and monocytosis (6.94 ± 0.31%) were also observed. Biochemically, EBH affected animals had hypoproteinaemia (5.83 ± 0.09 g/dl), hypoglycaemia (49.05 ± 1.07 mg/dl), hypoccalcaemia (7.88 ± 0.05 mg/dl), hypophosphataemia (3.42 ± 0.03 mg/dl) and iron deficiency (84.03 ± 1.20 mg/dl) with elevated blood urea nitrogen (37.27 ± 2.32 mg/dl) and creatinine levels (2.00 ± 0.16 mg/dl). BPV-2 DNA was detected from 19 out of 45 blood samples of EBH affected cattle. Urine was alkaline in nature (pH 8.48 ± 0.14), normal specific gravity (1.020 ± 0.001) and average erythrocytic count of 0.35 ± 0.03×10⁶/cu mm of urine. Urine was positive for protein (100%) and glucose (48%). Microbiological investigation of urine samples revealed that Streptococcus spp., Staphylococcus spp. and Proteus spp. were the major associated bacterial infections. Ultrasonography proved to be a useful tool for evaluation of vesicular diverticular neoplasm and is a very sensitive indicator for detecting space occupying lesions at a very early stage. Symptomatic therapy comprising of antibiotic, haemostat, haematinic mixture and mineral mixture lead to mild and transient response suggesting long term therapy to increase longevity of affected animal.

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