Vitiligo in Buffaloes

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Introduction

Vitiligo is a skin condition characterised by spontaneous loss of melanin has been described in several animals. Vitiligo or leukoderma progress slowly and condition is uncommon in buffaloes.

Case History and clinical observation

Buffaloes which were brought to the Medicine ward of TVCSC were utilized for the present case report. Eight graded murrah she-buffaloes having white patches upto 2-12 cm around the eyes,on neck, side of abdomen, flank, thorax. These white patches slowly spread on all region.

In all the animals the appetite was normal. Temperature, pulse, respiratory rate were within normal range. Conjunctiva mucous membrane was pale. The animal was active. Examination of dung sample and blood smears revealed no parasitic infection.

Serum samples were collected from buffaloes for estimation of copper by sodium diethydithi-carbonate method (Raghuramula N. *et.al*.1952).

Treatment

Animals were treated with copper sulphate @ 8 gm orally once in a week for 4-8 weeks and the white patches slowly regress after supplimentation.

Discussion

Etiology of vitiligo is unknown occur in dark and brown skinned varieties of buffaloes. (Cockrill, 1974). Vitiligo is a skin condition due to deficiency of copper.

Abnormal hair pigmentation might be occur due to decreased tyrosinase activity resulting in decreased conversion of tyrosine to melanine. Serum copper levels ranged from 11.75µg/dl to 27.5 µg/dl with a mean value of 23.8 µg/dl. The mean serum copper level was much lower than normal value of 32.8 µg/dl. The level of copper in serum are comparative to those in sheep, goat, cattle and camal. The values below 60 mg/dl indicate a copper deficiency. The copper deficiency in livestock is very commman (Kachhawaha 2003).

In copper deficient areas, low blood levels of copper intake from natural forages. Colour coat also affected (Radostitis *et. al.* 2000).

Depigmentation was identical and spread on either side of body. The condition is unsightly but appears to have no pathological significance (Hussain, N.,1990).

After supplementation of copper sulphate the white patches regress slowly. There was variable response after supplementation with copper sulphate.

References

1. Cockrill, W.R. 1974. The husbandry and health of the domestic buffalo. Isted food and Agriculture Organization of the United Nations Rome. Pp.53-54.
2. Kachhawaha Subhash 2003: Copper deficiency in Buffalo calves. Intas Polivet Vol.4 No.II : 238-239.
3. Hussain, N. 1990. Leukoderma In Buffalo. Buffalo Bulletin. Vol.9 No.3 pp.51-52.
4. Raghuramula, N., k.Madhavannair, S. Kalpna Sundaram 1952. A Manual of Laboratory Techniques. J. Biological Chemistry pp. 196-209.
5. Radostits otto.M., Gay Clive C., Blood Douglas,C., Hinchcliff kenne W. 2000 . Textbook of the diseases of cattle, sheep, pigs, goats & horses. Ninth Edition pp 1487-1499.

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