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Management of nervous form of ketosis in buffalo: A case report

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Abstract

The present case report discusses on the successful recovery of a timely treated affected animal with oral carbohydrate precursor therapy administered for 3-5 days along with initial parental therapy.

Keywords: management, ketosis, buffalo, nervous

Introduction

Ketosis is the metabolic disease of high yielder dairy animals and is most consistently characterized by partial anorexia and depression. Negative energy to hypoglycemia and ketonemia are primary cause of the disease^[1, 2]. It causes economic loss due to decrease milk production, cost of treatment, and occasionally death of animal.

Case location

The present study was carried out at Village: Bardu Mugal, Tehsil Loharu, Dist.: Bhiwani, Haryana, India

Case history and observation

As per owner the buffalo was 4.5 year old, primiparous and parturated 120 days ago. History of gradually decreasing intake of concentrate and fodder was found. From last night showed some furious sign and bellowing. When I went there buffalo showed nervous sign with abnormal gait, stretching of neck and head.

Diagnosis

Diagnosis was performed on the basis of history, sign and symptoms; tentatively diagnosed as nervous form of ketosis.

Treatment, Results and Discussion

Treatment of this buffalo includes intravenous administration of 3000 ml of 10% dextrose solution and 10 ml Tribivet (Vitamins B1, B6 and B12) for consecutive three days; injection 10 ml of prednisolone intramuscularly for one day and advised the owner to fed two Bioboost bolus with 300g of jaggary twice a day for five days. On second day the owner reported marked improvement and after five days complete recovery was reported.

The heavy demand of energy in early lactation can cause persistent hypoglycemia with resultant decrease in insulin production and subsequent lipid mobilization, the resultant hepatic lipidosis leads to increase in hepatic ketogenesis, hypoglycemia and hyperketonemia^[3]. The nervous signs are thought to be caused by the production of isopropyl alcohol a breakdown product of acetoacetic acid in the rumen, although the requirement of nervous tissue for glucose to maintain normal function may also be a factor in these cases^[1]. Hypoglycemia, ketonemia and ketoneuria are rather constant and a characteristic feature in ketosis^[4]. The severity of clinical ketosis in cattle follows rather closely the degree of hypoglycemia^[5, 6]. Although at first instant the disease can easily get confused with rabies, listeriosis and plumbism (Lead poisoning) due to similarity in on or more clinical signs. However, following tactful anamnesis and through clinical and laboratory investigations it can easily be differentiated.

Conclusion

The affected animal can be recovered successfully if treated timely. In therapy oral carbohydrate precursor should be given for at least 3-5 days along with initial parental therapy.

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