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Clinical Article

Downer Cows Syndrome in Cows and its Treatment

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Introduction

Downer syndrome is characterized by inability of the cattle to stand voluntary from recumbency and it is generally associated with hypocalcaemia, hypomagnaesamia, hypophosphataemia, hypokalaemia, toxaemia, septicaemia, muscle and nerve injuries (Andrews et al. 1992)

The Etiology is not clear but the available evidence and clinical experience suggest that the disease is a complication of hypocalcaemia 'parturient paresis' (Cox, 1988). The disease occurs most commonly in the first 2 or 3 days after calving in heavy milk produces, prolonged recumbency (more than 4-6 hrs) causes ischemic necrosis due to obstruction of the blood supply (Fenwick, 1969)

Case History and Clinical Examination

Cows were admitted in our hospital with the history of inability to rise. Mostly downer cows tried to stand up repeatedly but could not rise on there feet. They were tried to rise therefore quarters but failed to put up weight on hindquarters .The body temp, resp. and pulse rate were within the normal range. Animals were taking feed normally and alert.

Table-1 No. of cases admitted in year 2006-2007

Month & Year	No. of Cases admitted	Re-covered	% of recovery
April 06	9	6	66.6 %
May 06	1	—	0 %
June 06	8	5	62.5 %
July 06	4	3	75 %
Aug 06	7	5	71.4 %
Sep. 06	4	2	50 %
Oct. 06	8	3	37.5 %
Nov.06	8	5	62.5 %
Dec.06	10	6	60 %
Jan.07	4	1	25 %
Feb.07	14	8	57.14 %
Mar. 07	11	7	63.6 %
Total	**88**	**51**	**57.95 %**

Management and Treatment

Cattle slings were used to make the animal stand. (Figure No: 1&2)

It was designed in such way that the weight of the animals is equally distributed. Soft bedding sand was used. Massage was carried out to increase muscular actitivities by using Mahaveer Tel (locally available). All the cases were treated with

injections Mifex 450 I/V, Inj.Intalyte 500ml I/V, Inj E-Care 10ml and Inj.Vetalog 2.5ml I/M for 3 alternate days, Inj.Tribivet 7ml and inj. Capsola 15 ml I/M for 5 days, Inj.Keesol 45ml slow I/V with 5% D.N.S.

Result and Discussion

In clinically cases of 88 only 51 cases were recoverd. The results were encouraged after the treatment. The recovered animals were clinically appeared bright, alert, and normal defectation, urination with normal appetite. All the recovered cows had responded to slings and Ca, Mg, P and K preparations, Hypocalcaemia in recumbent cows occur due to the fact that ischaemia as a result of prolonged recumbency. It increases the cell memb. Permeability of muscle fiber and allow the loss of potassium from the cell and causing myotonia which appears to be the basis of downer syndrome (Andrew et.al.1992). Diminished excitability of nerve and muscle cells, weakness and flaccid paralysis are the consequences of hypocalcaemia (Kowalczk and Mayer, 1972). Inorganic Phosphorus concentration in downer cow was lower b/c release of parathrome in response to hypocalcaemia (Kronnfeld, 1971) caused enhanced excreation of inorganic phosphorus (Kanelo, 1989). Magnesium concentration was higher; it was probably due to effect of parathyroid hormone in response to hypocalcaemia (Kronfeld, 1971).

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