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SUPPLEMENT THE RAISER TO LIFT THE DOWNER COW

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ABSTRACT

The efficacy of Raiser (250 g), a nutritional product) containing high a concentration of ionic calcium, calcium stabilizers, buffers, coated vitamins and energy supplements on 99 downer cows and buffaloes, as an electuary with bran and treacle and found 76 per cent efficacy. The same product was also tried in 4 recurrent cases of hypo calcium and observed high efficacy.

Keywords Raiser; Downer cows and buffaloes;

Introduction

Downer cow syndrome is defined as lateral or sternal recumbence that persists for longer than 24 hours [Harwood 2003)or that persists for longer than two weeks despite treatment [Jonsson 1969). Downer cow syndrome is the condition where the animal will be active and alert but is unable to stand The incidence of this syndrome ranges from 4.5 to 14% [Correa and Erb 1963) Downer cow syndrome can be seen in all stages of the animal's reproductive cycle but the majority of all downer cows are diagnosed shortly after parturition. Total blood calcium concentration in the adult cow is maintained between 8.5 and 10.0 mg/dL (2.1 and 2.5 m mole/L). Nearly all cows will experience some degree of hypocalcaemia at the onset of lactation; however, the severity and duration of the hypocalcaemia experienced depends on the integrity of the cow's Calcium homeostasis mechanisms (Jesse P, 2014). Prolonged recumbence results in varying degrees of ischemic necrosis of major muscles of the hind limbs, particularly the semitendinosus muscle and muscles caudal to stifle. Prolonged compression of the muscle leads to tissue anoxia, cell damage and inflammation which cause swelling; the swelling causes a further increase in pressure which limits tissue perfusion and leads to a detrimental cascade of events. . This syndrome is one of the major problems easily diagnosed but will have to do the cumbersome treatment at field level. Prolonged recumbence due to inadequately treated and unresponsive hypocalcaemia is one of the common causes of downers syndrome. (Nirmala Kumari and Kaswan, 2015). This syndrome may also be the result of many factors like hypophosphatemia, undernourished cow, trauma, high protein intake and fat cow syndrome [. Allen nd Davies, 1981]. The Downer cow syndrome might also occur due to the combined effect of muscle and nerve injuries, persistent hypocalcaemia and hypophosphatemia, myocarditis, hepatitis, septic mastitis and other factors [Jonsson,1983)

Materials and methods –

Various methods of treatment after mifex injection with Tonophophan, Tribivet, Vitamin D 3, and Physiotherapy with limited success. We hypothesized that high ionic calcium, energy supplements, calcium stabilisers, D3 may lift up the downer cow. A new neutraceutical product Raiser, manufactured by Oxenvet neutraceuticals, Kadapa

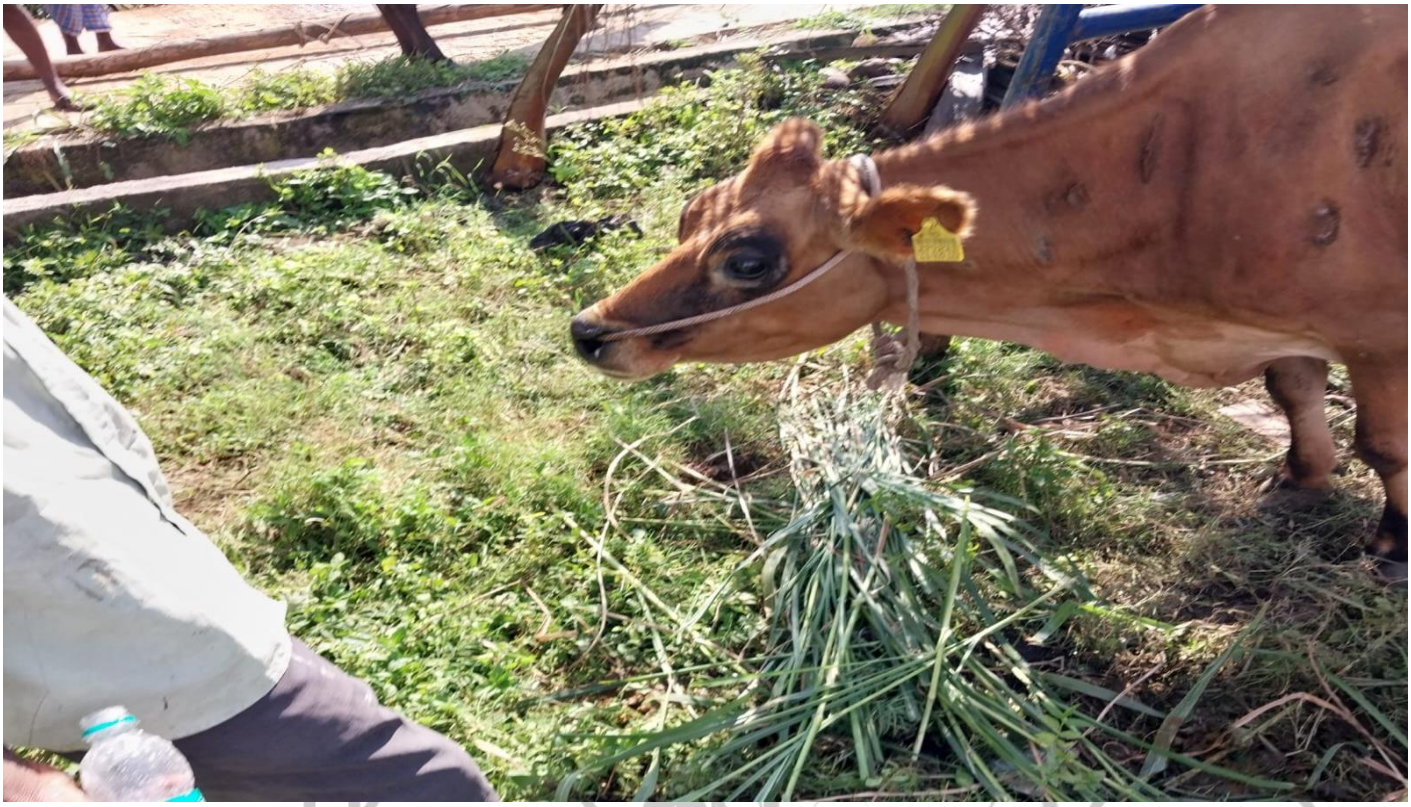
During 2022-20023, at Kadapa, Nellore, Rayachoty, Bangalore milk union, covering 4 buffaloes and 60 cows which were downers from 3 days to 14 days. Raiser was supplemented as 125 grams or 250 grams depending on severity as electuary with treacle for 1 to 3 days.(Table 1)

Table 1 Showing number of animals supplemented

Serial number	Place of study	Kind of animal	Downer		Recurrent hypocalcaemia	
			Treated	Cured	Treated	Cured
1	Kadapa	Buffaloes			1	1
2	Nellore	Buffaloes	4	3		-
3	Bengalore	Cows	35	26		
4	Rayachoti	Cows	60	45	4	4
5	Total		99	75	5	5

Figure:1. Downer Jersey cow in slings

Figure:2. Three days after supplementation of RISER could stand without slings.



Observations -

It was observed that 75 per cent of supplemented cows and buffaloes, could raise from recumbence with both calcium injection and raiser after witnessing the failure of calcium infusion alone. When only Raiser was tried, the animals could raise from one day to 6 days with ambulatory therapy. Raiser was observed to be fully effective in all 4 cases of recurrent hypocalcaemia. (Figure 1 and 2)

Discussion –

Our prediction came true. The product Raiser proved effective. This could be possible when favourable conditions were brought out in calcium hemostasis, energy levels and oxidative stress reduction, after supplementation of the Raiser.

(Guyot et al 2017). The efficacy of Raiser in persistent hypocalcaemia may be due to the stabilization of calcium in the serum and tissue levels by the Raiser.

Conclusion-

It was concluded that 75 per cent of downer cows and buffaloes could be lifted after supplementation with one to 3 pockets within 7 days after the failure of calcium infusion.

Conflict of Interest-There is no conflict of Interest.

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