

Unit : Downer Cow Syndrome

Lesson : 3

Metabolic syndrome

Dr.S.Sivaraman M.V.Sc.,Ph.D

Assistant Professor

Dept of Clinics, Veterinary Clinical Complex,
VC &RI, Namakkal, Tamilnadu

Milk Fever





Dilated Pupil





Hypocalcemia – treatment

- ▶ **INJ.CALCIUM BOROGLUCONATE**
- ▶ **Half dose IV and remaining SC for better result**
- ▶ **Always prefer plain calciumborgluconate in milk fever for better results**



- **Intravenous Calcium @ 2.2 gm/ 100kg Bwt.**
- **Calcium chloride should not be given SC route.**
- **Increased sensitivity to calcium occurs in septicaemia, metritis, mastitis, ketosis**
- **Subcutaneous injection of ca per site 50 to 125 ml (avg- 75ml per site)**



- **Calcium dose rate period intravenous- 15 mts**
- **Iv calcium will be in system for only 6-8hrs only.**
- **500ml of 23% calcium borogluconate will provide 10.7gm of ca.**

Response To Calcium

- ➔ **Belching**
- ➔ **Muscle tremor, particularly of the flanks and often extending to the whole body**
- ➔ **Slowing and improvement in the amplitude and pressures of the pulse**
- ➔ **Increase in the intensity of the heart sounds**
- ➔ **Sweating of the muzzle**
- ➔ **Defecation**

Unfavorable response to calcium

- **Toxemia**
- **Septicemia**
- **Peritonitis**
- **Metritis**
- **Acidosis**

Response To Calcium

- IV administration of fluids that contain **phosphates** **should not** be given for **at least 2hrs** after IV administration of calcium or magnesium containing fluids.

Relapses?

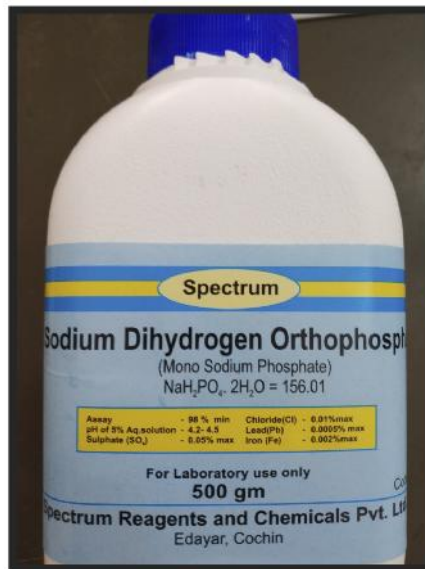
- **Hypophosphatemia**
- **Oral administration of calcium**
- **Partial milking**
- **Oral and SC administration of calcium**
- **Re evaluate the case**
- **Age factor?**

Hypophosphatemia: Recumbency



Inorganic – Phosphorus

- Sodium acid phosphate
- Sodium Dihydrogen Orthophosphate
- 100 to 150 gm orally or IV



Hypokalemia: Lateral recumbency unable to lift the head



Hypokalemia: Lateral recumbency



Lateral kink of neck with knuckling of fetlock



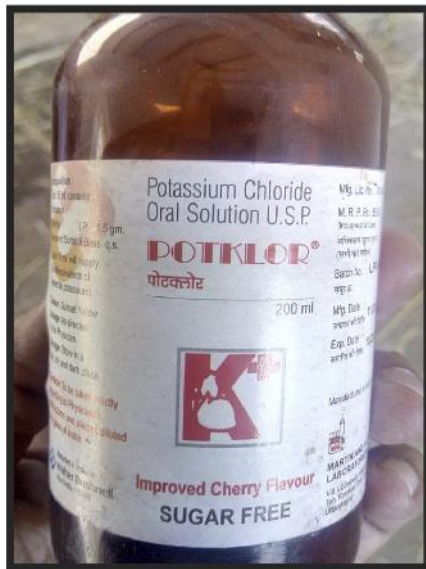
Lateral Kink



Treatment

→ Potassium chloride

- 0.5 meq/kg B wt



Potassium Chloride

- **Very slow iv in normal saline**
- **0.5 meq/kg Bwt**



Oral rehydration therapy



Thank you