

Downer cow syndrome

Etiology

- 1- Ischemic necrosis of large muscle of pelvic limbs secondary to prolonged recumbancy associated with milk fever.

- 2- Injuries of the tissue around the hip joint and of the obturator muscle common in cows which do not fully recover and stand but remain recumbent following treatment for milk fever.

- 3- Dystocia due to oversized calf may result in extensive edema of pelvic tissue and vulva and failure of the cow to stand following parturition. If these cow develop milk fever it is unlikely they will be able to stand following treatment with calcium.

Occurrence

The disease occurs most commonly within first 2 or 3 days after calving in high producing dairy cows immediately following milk fever.

Risk factor

*** Animal risk factors**

- 1- Complication to milk fever.
- 2- Traumatic injuries of pelvis and pelvic limbs.
- 3- Serum electrolyte imbalance.
- 4- Hypocalcemia.
- 5- Hypophosphatemia.
- 6- Hypomagnesemia.

7- Hypokalemia.

Environment & management risk factors.

- Discomfort ground surface is the major risk factor.

Pathogenesis

Several different primary factors or disease can result in ~~in~~ recumbancy ~~pressure~~ damage of ischiatic nerve necrosis of the major muscles of the hind limbs particularly in semitendinosus muscle and muscle caudal to stifle joint.

Clinical findings

- 1- Unable to stand following treatment with milk fever.
- 2- Sternal recumbancy.
- 3- Normal mental status , vital sign , and alimentary tract.
- 4- Appetite and thirst normal.
- 5- Most will stand in few days if provided good clinical care and secondary muscle necrosis minimized.
- 6- Some cases tack lateral recumbancy.
- 7- Abnormal position of the legs.
- 8- Groaning , anorexia , and die in several days.

Clinical pathology

- 1- Increase of serum CPK & AST.
- 2- Serum phosphate and potassium are subnormal.

Differential diagnosis

Like milk fever.

Treatment

- 1- Provide food , water and excellent bedding or ground surface.
- 2- Roll animal from side to side every few hours.
- 3- Fluids and electrolytes therapy are necessary.

Control

- 1- All recently calved dairy cows which are at high risk milk fever must be observed closely 12- 24 hours before calving for evidence of milk fever and while still standing; if recumbent don't delay treatment for more than one hour.

- 2- Can treat al high risk cows with calcium chloride gel orally to prevent clinical milk fever.