

Bovine Ephemeral Fever:

Etiology :

- Ephemeral Fever is caused by an **insect-borne un named Rhabdo virus.**
- **BEFV.closely associated with the leukocyte-platelet fraction of the blood .**

Epidemiology :

- Morbidity rate in outbreak is about 35% .case fatality rate of 1%.
- The source of infection is the animal affected with the clinical disease
- Spread occurs via insect vectors ,disease occurs in summer month .
- Only cattle are naturally affected in all age group of cattle ,are susceptible but the disease is more common in animal less than 2 years.
- Calves as young as 3 months are susceptible

Pathogenesis :

After an incubation period of 2-10 days ,viral septesemia develops with localization and inflammation in mesodermal tissue particularly joint ,lymph nodes and muscles.

-the V.is thought to grow in the reticuloendothelial cells in the lung, spleen and lymph node .

Clinical Finding

In most cases the disease is acute ,after respiratory and cardiac rate increase

- **Nasal watery ocular discharge.**
- **The animal shake their head and muscle shivering and weakness.**
- **Swelling about the shoulder ,neck and back ,muscle signs become more evident on the second days with severe stiffness.**
- **On the second day :**
- **Clonic muscle movement and weakness in one or more limbs**
- **Acute laminitis with all four feet,**
- **About the third day:**
- **The animal begins eating and ruminating ,febrile reaction disappears ,but lameness and weakness may persist for 2-3 more days**
- **In most cases recovery is rapid and complete after an illness of 3-5 days unless there is exposure to severe weather or unless aspiration of misdirected drench**
- **Abortion occurs in few cases.**

Clinical Pathology :

- Marked leukocytosis
- Hypocalcemia .

Necropsy Finding ;

- Serofibrinous poly serositis involving synovial ,pericardial, pleural and peritoneal cavities with characteristic accumulation of neutrophils in these fluid .
- All lymph nod enlarged and edematous
- Seromembranes show patchy congestion with petechiation ,and congested of abomasal mucosa.

Differential Diagnosis :

1-Traumatic reticulitis .

2- Acute Laminitis

3-Parturient Paresis

Treatment :

- Phenyl butazone
- Calcium solution
- Nursing of recumbent animals

Control:

- Control of vector is not possible
- There are no commercial a vailable vaccine .

Infectious Keratitis of Cattle (Pink Eye Blight)

Etiology

Hemolytic *Moraxella bovis*.

Other organism can exacerbate the severity ,

-level of solar ultra violet radiation changed

-Rickettsiae

-Chlamydia

-Mycoplasma .

-Acholeplasma .

Epidemiology

-disease occur in most countries and in summer and autumn

-there is no mortality and morbidity rate 80%.

-transmission occur by contaminated by ocular and nasal discharge of infected cattle .

-face fly important vector .

Pathogenesis

-Attachment of *Moraxella bovis* ,to corneal epithelium .

-microscopic corneal erosion are present within 12hr. of infection ,indicating initial production of corneal ulceration is due to direct cytotoxic activity of the organism.

- Focal loss of corneal epithelium,degeneration of keratocytes and fibrillar destruction.

Moraxella bovis produce hemolysin,leukocidine ,dermonecrotizing toxin .

Clinical Finding

- Incubation period 2-3days to up to 3weeks .

- Injection of corneal vessels and edema of conjuction and copious water lacrimation ,blepharospasm ,photophobia .

- Slight fever ,fall in milk yield ,depression of appetite .

- In 1-2 day a small opacity appear in the center of cornea may become elevated

And ulcerated during the next 2 days although spontaneous recovery .

-color of opacity varies from white to deep yellow , ocular discharge become purulent and the opacity begins to shrink ,complete recovery occurring after a total course of 3-5weeks .

In sever cases the cornea becomes conical in shape

-the eye may rupture and result complete blindness.

Clinical Pathology

-1- swabs should be taken from conjunctival sac

2-serological test .

Differential Diagnosis

- 1-Traumatic conjunctivitis
- 2- infectious bovine rhinotrachitis .
- 3-rinder pest
- 4-bovine malignant catarrhal fever.
- 5- bovine viral diarrhea .
- 6- photo sensitization keratitis .
- 7- thelaziasis.
- 8- pasteurella multocida .

Treatment

- 1-eye ointment and solution containing antibiotic ,furazolidone ,oxytetracyclin ,penicillin – streptomycin mixtures /3 time ,daily .
- 2- corticosteroid and antibiotic ,healing is rapid
- 3-dexamethasone 1mg with 2ml penicillin-streptomycin
- 4- sulfadimidine 100mg/kg .

Control

- 1- Eradication or prevention of the disease
- 2- Insecticide impregnated area tags may help in control .
- 3- Keep animal under close condition and isolate .
- 4- Treated any cattle show excessive lacrimation and blepharospasm .
- 5- Killed ,whole -cell vaccine have been available ,3injection 14 day apart .
- 6- Weekly treatment of both eye of calves,but not the cow with furazolidone eye spray more effective prophylaxis than vaccination.