

COCCIDIOSIS

- **Coccidia of Cattle and Buffalo:**

- 1. *Eimeria alabamensis*
- 2. *E. auburnensis*
- 3. *E. bareillyi*
- 4. *E. bovis*
- 5. *E. brasiliensis*
- 6. *E. bukidnonensis*
- 7. *E. canadensis*
- 8. *E. cylindrica*
- 9. *E. ellipsoidalis*
- 10. *E. pellita*
- 11. *E. subspherica*
- 12. *E. wyomingensis*
- 13. *E. zuernii*.
- 14. *Cryptosporidium bovis*

Most Pathogenic spp. 1. *E.zuernii*

- Major pathogenic coccidia , causing bovine coccidiosis. Found in Small and Large intestine of cattle and buffalo
- It is primarily a disease of young animal of cattle and buffalo
- Primarily calves of 3 weeks to 6month age
- Adult act as source of infection
- Infection occur through ingestion of sporulated oocyst with feed and water

- Most serious loss is seen in dairy herds
- Where large no of calves are kept
- It causes “ winter coccidiosis”
- Bedding provides enough warmth and moisture for sporulation in sub-zero temp.
- Bovine coccidiosis is a primary disease in buffalo herd of India
- Older animals remain as carrier for younger one.

Pathogenesis

- 1. Haemorrhagic diarrhoea initially
- 2. Frank blood in faeces
- Unpleasant odour and watery faeces.
- In severe cases, animal may die
- Anorexia
- Rapid respiration.

Another most pathogenic coccidia is 2. *E.bovis*

- It is pathogenic and common coccidia of cattle.
- Streaked bloody faeces with diarrhoea
- In acute cases, abdominal pain, foul smelling diarrhoe
- Rough coat
- Soiled hind quarter
- Young calves die within a few days

Diagnosis

- 1. Clinical symptom- bloody diarrhoea
- Loss of appetite
- Debility
- Soiling of perianal region
- Oocyst appears in faeces
- **Treatment:**
- **Sulphonamides drugs are mostly used in bovine coccidiosis**

- Sulphamezathine @0.125gm per kg b.w for 13 days or 0.215gm per kg body weight on alternate days is effective against *E.zuernii*
- Amprolium is most effective drug
- Coccidiostatic as well as coccidiocidal against *E.bovis*
- @20-25mg per kgb.w., given wt feed for 4-5 days.
- Monensin@1mg/kg feed daily 10-20days

Prevention

- General hygienemeasures
- Complete eradication of coccidiosis is neither advisable nor practised
- Growing calves should not be kept with adult
- Avoid contamination of feed and waterwith faecal contant
- Bedding and surrounding may be sterilized with 1.25% sodium hypochloride or fumigation with formaeldehyde.

Coccidiosis of sheep and goat

- *Eimeria ahsata*
- *E.arkhari*
- *E.arloingi*: **most common in intestine of goat**
- *E.christenseni*
- *E.gilruthi*: **globidial schizont(<800 μ in size)**
- *E. granulosa*
- *E.intricata*: **largest coccidia of sheep**
- *E.ovina*: **most common, SI of sheep**
- *E.pallida*
- *E.parva*
- *E.punctata*
- *E. ninakohlyakimovae*

Pathogenesis

- Most commonest and economically important disease of lambs and kids upto 6month age
- Younger animal pick up infection from their adult during suckling, licking through soiled litter
- Through contamination of feed and water
- Infected pasture
- Infection occurs at the onset of monsoon, when moisture and temp.is sufficient for sporulation of oocyst.
- Disease appear mostly after rain or during winter

- Clinical signs
- Diarrhoea
- Foul smelling faeces with or without blood
- Severe abdominal pain
- Anaemia
- Inappitance
- Unthriftiness and loss of wt.
- Lamb and kid may prefer to lie down due to severe abdominal pain.
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Diagnosis and treatment

- Clinical symptom and detection of oocyst in faeces.
- In acute cases entire intestine is oedematous, haemorrhagic and excess mucous production.
- Treatment is Same with cattle and buffalo
- Sulphaguanidine @ 2g per day for 6 days
- 24% injectable solution is given @ 2.5ml per 5kg or 7ml per 11kg
- Amprolium is highly effective @ 50-62.5mg per kg b.w.
- Lasalocid @ 12.5-100mg per kg feed

Control

- Bedding is the most common source of infection for lamb and kid
- Segregation of infected animal from rest of the animal of the flock
- Lamb and Kid should not be allowed to graze with adult
- Over crowding of animal should be avoided
- Drinking water and feed should not be contaminated

Coccidia of camel

- *Eimeria cameli*: common, oocyst are truncate
- *E. dromedarii*
- *E.rajasthani*: oocyst ellipsoidal

Coccidia of Pig

- *E.debliecki*: commonly in SI of pig
- *E. neodebliecki*
- *E. polita*
- *E.porci*
- *E.scabra*: Oocyst wall is yellowish brown, rough and striated
- *E.spinosa*: Cyst wall is brown , opaque and studded with spines. Pathogenic
- *Isospora suis*

- Diarrhoea , emaciation and constipation.
- Treatment with [Nitrofurazone@0.44%](#) in feed for 7 days
- Amprolium @ 25-65mg per kg b.w
- Control by improve hygiene
- Cleanliness of pen
- Avoid overcrowding

- *Eimeria leuckarti*: of equine
- *Biggest size coccidian oocyst*