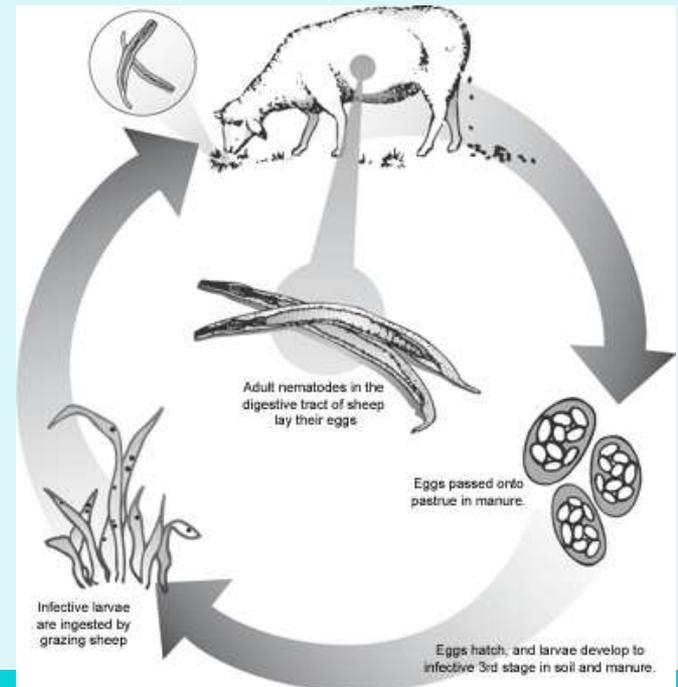


Coccidiosis



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Introduction



- Usually an acute invasion and destruction of intestinal mucosa by protozoa of the genera *Eimeria* and *Isospora*
 - *Eimeria* affect sheep
- It is a parasitic disease in the intestinal tract
- The parasite, coccidian, attaches to the epithelia lining in the intestines
- Serious disease in sheep, cattle, goats, pigs, poultry and rabbits
 - In dogs, cats and horses it is less diagnosed but it can cause illness
- Host-specific

Infection

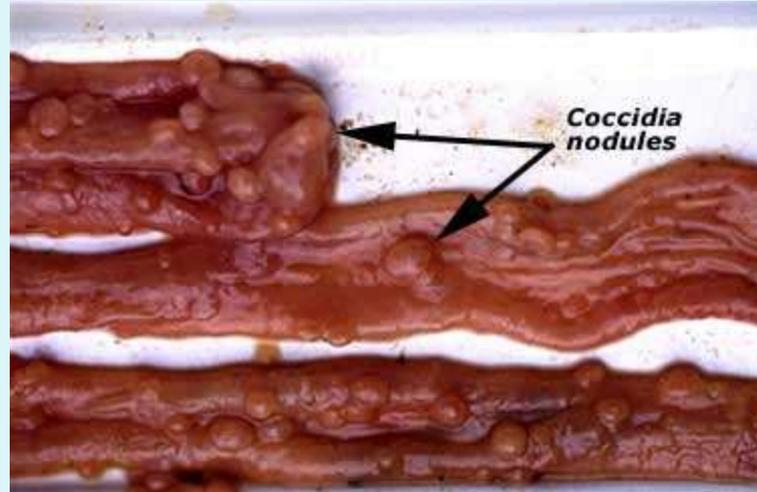


- Most common in lambs 3-6 weeks old that are infected right after birth
- Infection is more common in wet months
- Parasite is transmitted orally and infection can occur from residual contamination of the environment or from parasites being shed by ewes
- Life cycle:
 - Lamb ingests oocysts, and the parasite invades the gut
 - The parasite divides asexually into a hundred or more daughter cells (In 10-14 weeks the daughter cells can multiply over a millionfold)
 - The daughter cells eventually break out of the gut and invade a new area and repeat the process
 - ✦ In this stage part of the gut wall have parasites attached that have developed into female and male sex cells
 - The female sex cells are fertilized and secrete oocysts into the gut wall
 - The oocysts are then shed in feces which completes the life cycle

Symptoms



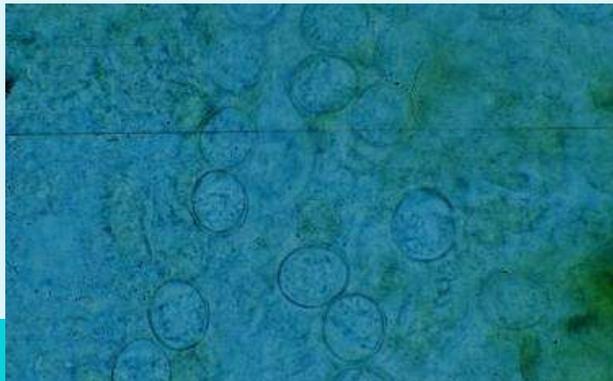
- Diarrhea
- Fever
- Dehydration
- Loss of appetite
- Wool breaking
- Weight loss
- Emaciation
- Sometimes death
- The ileum, cecum, and upper colon are usually most infected and can become thickened and inflamed
 - Sometimes there is a mucosal hemorrhage
- Thick white patches containing large numbers of oocysts may develop in the small intestine



Diagnosis



- Oocysts can be identified in feces by salt or sugar flotation methods
 - Multiple samples may have to be taken
 - Oocysts count of over 20,000 may be a sign of infection (10,000 count have occurred in healthy lambs)
- The number of oocysts found in the sample can vary depending on a number of factors.
 - This include: number of infected oocysts ingested, stage of infection, age and immune status of the animal, prior exposure, consistency of sample, and method of examination



Treatment



- Life cycles of the protozoa are self-limiting and their life ends spontaneously, unless re-infection occurs
- Timely medication may slow or inhibit the life cycle of the oocysts, which can shorten the length of the infection, alleviate symptoms and can lessen the likelihood of re-infection and death
- Anti-coccidial (coccidiacidal) drugs like Amprolium and Sulfur (Corid), Chlorotetracycline, Decoquinate and Sulphadimidine can be administered
- Infected animals should be moved and treated separately to prevent infection of other animals and make sure they are being treated effectively

Prevention



- Oocysts can survive up to one year
- Good feeding practices and good management (i.e. sanitation)
- Make sure neonatals receive colostrum
- Young susceptible animals should be kept in clean and dry areas
- Stress should be minimized
- Feeding and watering devices should be kept clean and clear from fecal contamination
- Animals can be fed a ration containing coccidiostats which slow down the shedding of coccidia into the environment
 - Monensin (Rumensin)
 - Iasalocid (Bovatec)
 - Decoquinate (Deccox)
- Oocysts can be killed by heat, direct sunlight and drying

Bibliography



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