ISSN: 2155-9597
Journal of Bacteriology & Parasitology

OPEN ACCESS Freely available online

Prespective

Short Note on Clostridial Disease

Evans Tanya*

Department of Biomedical Sciences, College of Veterinary Medicine, Blacksburg, Virginia, US

ABOUT THE STUDY

Clostridial diseases are caused by anaerobic bacteria to the environment, especially soil. Bacteria produce spores that can survive for a very long time in the environment. They can be living cells (vegetative) or dormant spores. Clostridial diseases include tetanus, blackleg, black disease, malignant oedema, pulpy kidney and botulism. With all clostridial diseases, diagnosis will require assistance from a veterinarian. The most frequent clostridial infection is minor. Severe *Clostridium* disease is relatively rare but can be fatal. Pathogenic strains or their toxins can be obtained from animals susceptible to either wound contamination or ingestion. Abdominal diseases such as cholecystitis, peritonitis, appendix rupture, and intestinal perforation can affect *Clostridium perfringens* and others. Crepitant cellulitis, myositis, and muscle necrosis and soft tissue infections characterized by *Clostridium* myostomy can be caused by C-perfringens. Necrosis of the skin and tissues can be caused by *Clostridium septicum*, which is derived from blood and colon. *Clostridium* also appears as a component of the mixed flora of common mild wound infections. Their role in such infections is unknown. Hospital acquired clostridial infection is increasing, particularly in postoperative and immunocompromised patients. Severe *Clostridium* sepsis can complicate intestinal perforation and obstruction.

Clinical symptoms that warn of *Clostridium* disease include: Tetanus, emphysema, malignant edema, botulinum poisoning. Enterotoxemia type C is caused by Clostridium perfringens type C and affects lambs in the first few weeks of life, causing blood infections of the small intestine. It is often associated with indigestion and is caused by sudden changes in the diet. Treatment like injection of antitoxin under the skin usually fails. For prophylaxis, it is recommended to vaccinate the lamb 30 days before. Bulimia nervosa is one of the most common sheep diseases in the world. It is caused by *Clostridium perfringens* type D and most commonly affects the largest and fastest growing lambs in the herd. This is caused by sudden changes in feed that cause the organisms that are already present in the cattle's and lamb's intestine to multiply and cause a toxic reaction. This is most commonly observed in lambs that consume high concentrations of food, but it can also occur when lambs feed heavy milk. It usually affects the lambs if it is older than a month. Treatment like antitoxin injected under the skin is usually ineffective. Tetanus is caused by *Clostridium tetani*, a soil resident which is a prolific spore producer. The disease usually has tetanus-carrying wounds, but is associated with docking and castration by the elastrator band. Signs of tetanus appear about 4 days to 3 weeks or more after the wound is infected. The animal's gait becomes stiff, "lockjaw" occurs, and the third eyelid may stick out of the eye. Animals usually have all four legs stretched out to stiffen and fall to the ground with their heads pulled back. Convulsions can occur in animals. Treatment consists of tetanus antiserum and antibiotics. Tetanus can be prevented by vaccination of pregnant lamb before 30 days. If the pregnant ewes are not vaccinated against tetanus, tetanus antitoxin can be administered to the lambs during docking and/or castration. Tetanus antitoxin provides immediate short-term immunity and can be used during docking and castration to prevent the development of illness. Type B Enterotoxemia (Lamb dysentery) *Clostridium perfringens* type B causes a ramping clock. Strong lambs less than 2 weeks old are usually affected. Symptoms include sudden death, malaise, lying down, abdominal pain, and stinking diarrhea that may contain blood. At necrosis, the intestines show severe inflammation, ulcers, and necrosis. Mortality is approaching 100%. *Clostridium perfringens* type B is not common in the United States, but it is common in the United Kingdom, Europe, South Africa, and the Middle East. *Clostridium* infections in sheep are often adequately prevented by vaccination, but cattle are also more susceptible to infection. *Clostridium* spores can enter the animal's body through skin wounds and contaminated needles / injection devices.

Blackworm disease occurs in sheep in areas where liver flukes are known. The infection is caused by the bacterium *Clostridium novi*, which is activated in liver tissue damaged by *Clonorchis sinensis*. Control depends on vaccination and removal of liver flukes. Blackleg is a bovine and rarely a sheep disease. It is caused by the soil bacterium *Clostridium*. The disease progresses rapidly in affected animals and often dies before the person

Correspondence to: Evans Tanya, Department of Biomedical Sciences, College of Veterinary Medicine, Blacksburg, Virginia, US, E-mail: evanstans@vt.edu

Received: 03-Jan-2022, Manuscript No. JBP-22-411; **Editor assigned:** 05-Jan-2022, PreQC No. JBP-22-411 (PQ); **Reviewed:** 19-Jan-2022, QC No. JBP-22-411; **Revised:** 21-Jan-2022, Manuscript No. JBP-22-411 (R); **Published:** 28-Jan-2022, DOI:10.35248/2155-9597.22.13.411

Citation: Tanya E (2022) Short Note on Clostridial Disease. J Bacteriol Parasito. 13:411

becomes aware of the disease. Vaccination is the only preventative measure against emphysema. Malignant edema is caused by *Clostridium septicum*. Black legs and malignant edema are indistinguishable in sheep. This disease is not common in North American sheep. Lambs can be vaccinated in areas where the disease is known. In an integrated approach to the prevention of *Clostridium*, the following should be considered: Prevention of *Clostridium* relies primarily on vaccination and the entire herd should be vaccinated according to the instructions on the vaccine label. Common causes of *C-perfringens* infection are meat, chicken, sauces, and other foods that are cooked in large quantities and kept at dangerous temperatures. Outbreaks usually occur in hospitals, school cafeterias, prisons, nursing homes, and other places that serve large numbers of people, as well as catered food events.