

Brucellosis: A zoonotic disease

DIMAPUR: Brucellosis is a bacterial disease caused by genus of *Brucella* which leads to abortion in last trimester (6-8 months) of pregnancy in farm animals.

According to Dr. Rakesh Kumar Chaurasia, PC, KVK, Zunheboto Nagaland University, inflammation of testicle in male animals (Orchitis) causes fever and joint pains in human beings if infected. Chances of infection to those persons, dealing with animals are more like veterinary doctors, veterinary field assistants, dairy farmers and persons working in slaughter houses.

Casual organism: Species infecting domestic livestock are *B. melitensis* (goats and sheep), *B. suis* (pigs), *B. abortus* (cattle and bison), *B. ovis* (sheep) and *B. canis* (dogs). *Brucella* species have also been isolated from several marine mammal species (pinnipeds and cetaceans).

Mode of spread of disease:

In animals: It is found in the placental remains, aborted foetus and vaginal discharges of infected animals or sometimes coming in contact with infected materials, contaminated feed

, water and equipments of Artificial insemination

In Humans: It spreads by direct contact with infected animals, by consumption of unprocessed milk and its products, droplets from infected materials coming in contact with open wound and eyes and sometimes through inhalation of infected materials in air.

Symptoms In Animals: It causes abortion of foetus, retention of placenta, infertility, dead or premature calves, inflammation of testicle in male animals, decrease fertility and inflammation of joints.

In Humans: It causes fever, excessive sweating during night and shivering, headaches, back pains, anorexia and physical weakness. Severe infections of the central nervous systems or lining of the heart may occur. Brucellosis can also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain, and fatigue.

Prevention: In animals: The most and important thing is to segregate the infected animals from healthy animals, proper disposal of aborted foetus and placenta (which can

be buried in deep pit and should be covered with lime). The infected materials should not be thrown in open field to prevent eating of carcass by other animals such as dog. Screening of farm animals should be done for *Brucella* spp. from time to time and positive animals should be culled. Mating should be done with bulls free from brucellosis. Vaccination schedule for Brucellosis should be followed to minimize infection.

In Human Beings: Persons working with infected animals should take full precautions such as use of arm sleeves, gloves and gum boots. Special cares should be taken by doctors while examining the animals and while treating aborted animals. All animal products should be consumed after proper cooking and milk should be boiled properly. Affected persons must get treated from expert medical doctors or else it may be transmitted from human to human. Farmers should be made aware of this disease and from time to time awareness camp should be conducted to prevent further multiplication of this disease.