

## **ANTHRAX**

Anthrax is a bacterial zoonotic disease with worldwide in distribution. Herbivores and human beings are mainly affected.

### **Causative agent Bacteria –**

'Bacillus anthracis'. It presents as vegetative cell or spore. Spores are resistant to various chemicals and adverse climatic conditions

### **Mode of infection**

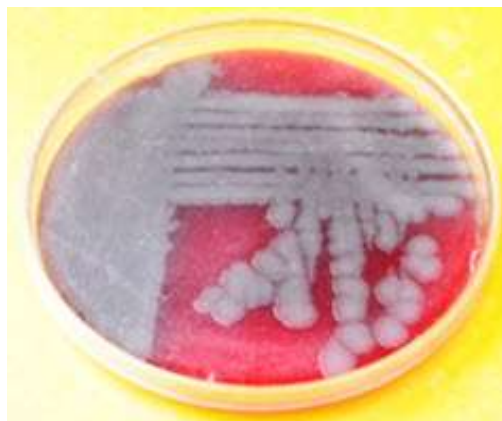
- Wrongly opening the infected carcass
- Aerosol infection during animal husbandry practice and tannery work
- Through skin wounds
- Ingestion of infected meat
- Infection by 'bioterrorist attack' and 'biological warfare'

### **Clinical signs:**

In human the disease mainly occurs in three different forms namely Skin form (carbuncle), Lung form (Pneumonia) and Stomach & Intestinal form (nausea, vomiting, fever, abdominal pain, blood in vomitus, bloody diarrhoea, ascites, toxemia, shock and death)

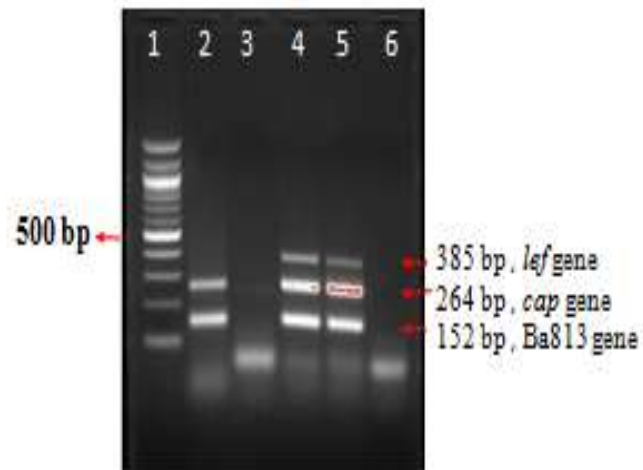
### **Laboratory diagnosis**

- Staining and microscopic examination of smear taken from blood and exudates.
- Cultural examination of blood and exudates



Anthrax: colonies revealing ground glass appearance in Blood agar

- Amplification and detection of toxigenic plasmids and chromosomal DNA by multiplex polymerase chain reaction



### Prevention and control Measures:

- Do not open the carcass. Move the carcass after sealing all the natural orifices with formalin soaked cloth using a suitable stick (avoid touching discharges) Burning (ideal) or, burial of carcasses 6 feet under the ground in a designated area of the village
- Leave the carcass unmoved and adequately closed off from other animals, or people
- Prompt disposal of bedding and contaminated materials and area with disinfectant such as 10 % formalin for at least 12 hours contact time or 5% phenol
- Slaughter house and tannery workers and veterinarians should wear protective clothes, gloves, goggles and face mask.
- The hide wool, bone meal or other feed of animal origin has to be disinfected or sterilized as a routine.
- Meat should be purchased from authorized vendors
- Suspicious postal mail should not be opened