

## Lecture (17)

### Anthrax

Anthrax, also called malignant pustule or woolsorters' disease, acute, infectious, febrile disease of animals and humans caused by *Bacillus anthracis*, a bacterium that under certain conditions forms highly resistant spores capable of persisting and retaining their virulence for many years.

#### History:

Anthrax became widely known in 2001 when it was used as a biological weapon. Powdered anthrax spores were sent via letters in U.S. mail.

Infectious agents : by the microbe *Bacillus anthracis*.

Reservoir : are farm animals like cattle, goat, and sheep. Humans can become exposed after handling infected animal products such as pelts/skins or eating contaminated meats.

#### Transmission :

- You can get anthrax through indirect or direct contact by touching, inhaling, or ingesting anthrax spores. Once anthrax spores get inside your body and activate, the bacteria multiply, spread, and produce toxins.
- You can come into contact with anthrax through animals or biological weapons.

#### Symptoms:

- Skin form: small blister with surrounding swelling
- Inhalational form: fever, chest pain, shortness of breath
- Intestinal form: nausea, vomiting, diarrhea, abdominal pain
- Injection form: fever, abscess

#### Diagnosis:

To confirm the organism is *B. anthracis*, rapid diagnostic techniques such as polymerase chain reaction-based assays and immunofluorescence microscopy may be used.

### **Prevention:**

- Precautions are taken to avoid contact with the skin and any fluids exuded through natural body openings of a deceased body that is suspected of harboring anthrax.
- The body should be put in strict quarantine.
- Protective, impermeable clothing and equipment such as rubber gloves, rubber apron, and rubber boots with no perforations are used when handling the body.
- You can reduce your risk of anthrax by having the anthrax vaccine trusted Source.

### **Treatment:**

- If you're exposed to anthrax but you have no symptoms, your doctor will begin preventive treatment. Preventive treatment consists of antibiotics and the anthrax vaccine.
- If you've been exposed to anthrax and have symptoms, your doctor will treat you with antibiotics for 60 to 100 days. Examples include ciprofloxacin (Cipro) or doxycycline (Doryx, Monodox).