

Clinical Image

Cutaneous Anthrax

Md. Habibullah¹, Mahbuba Khan Eusuf Zai², Mohammad Abu Hanif³, Sardar Mohammad Tanvir⁴

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Case:

A middle-aged male butcher by profession was sent to OPD of Upazila Health Complex, Ghatail, Tangail by Upazila Veterinary Surgeon because of a 2-day history of appearance of skin lesion on inner aspect of right forearm after slaughtering and handling a sick cattle one week back. Five days after contact with the sick animal the patient noticed skin lesion which was initially small, painless, pruritic papule. Quickly it enlarged and transformed into vesicular lesion followed by erosion and leaving an ulcerated depressed black Eschar over 2 days. There was no systemic upset associated with this skin lesion. Based on suggestive history, clinical presentation and typical skin lesion (Image 1, 2 & 3), the case was notified to Directorate General of Health Services (DGHS). A surveillance team from Institute of Epidemiology, Disease Control and Research (IEDCR) visited for investigation and contact tracing. Subsequently the patient was diagnosed as cutaneous anthrax and was treated with oral Ciprofloxacin 500 mg twice daily for 10 days according to National guideline. He was regularly followed up and cured uneventfully.

Discussion:

Anthrax is mainly a disease of herbivores caused by *Bacillus anthracis*. In human it causes four major anthrax syndromes after inoculation of anthrax spores depending on their route of entry: cutaneous anthrax, inhalation anthrax, gastrointestinal tract anthrax, and the more uncommon primary anthrax meningitis.¹⁻⁴

The ease of production of anthrax spores makes this infection a candidate for biological warfare and bioterrorism.⁵

1. Assistant Professor (Critical Care Medicine), Department of Anaesthesia, Pain, Palliative & Intensive Care, Dhaka Medical College & Hospital, Dhaka, Bangladesh
2. Registrar, Dhaka Medical College Hospital, Dhaka, Bangladesh
3. Veterinary Officer, District Veterinary Hospital, Narsingdi, Dhaka, Bangladesh
4. Assistant Professor (Critical Care Medicine), Department of Anaesthesia, Pain, Palliative & Intensive Care, Dhaka Medical College & Hospital, Dhaka, Bangladesh

Corresponding Author:

Dr. Md. Habibullah
Assistant Professor, Critical Care Medicine
Dept of Anaesthesia, Analgesia, Palliative & Intensive Care
Dhaka Medical College Hospital, Dhaka, Bangladesh
Email: dr.fuad59dmc@gmail.com

Cutaneous anthrax is the most common form of the disease and is associated with occupational exposure to anthrax spore during processing of hides and bone products.⁵ The incubation period is usually 5 to 7 days with a range of 1 to 12 days.^{6,7}

Majority of cutaneous lesions occur in exposed areas such as the face, neck, arms, and hands. The skin lesion appears as a small, painless, but often pruritic papule and rapidly enlarges and develops a central vesicle or bulla, followed by erosion, leaving a painless necrotic ulcer with a black, depressed eschar.⁸ Huge edema of the surrounding tissues is often present with regional lymphadenopathy and lymphangitis. Sometimes, anthrax spores can enter through the palpebral fissure, causing palpebral swelling and necrosis of the eyelids.⁹

Bacillus anthracis can be cultured from skin swabs from lesions. Cutaneous lesions are readily curable with early antibiotic treatment with ciprofloxacin (500 mg twice daily) for 10 days.⁵



Image-1



Image-2



Image-3

Conclusion:

Cutaneous anthrax is a treatable and notifiable condition.

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