

Clinical Image

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Cutaneous anthrax of the hand: A clinical image

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Background

Anthrax is an especially dangerous infection caused by *Bacillus anthracis*, a gram-positive, aerobic, sporulating rod. *Bacillus anthracis* cause pulmonary, gastrointestinal and cutaneous disease. Armenia is endemic for Anthrax. The disease is still a public health problem.

Case presentation

A 28-year-old man was admitted to the infectious diseases department of University Hospital after Mikaelyan, with the following complaints: wounds on his hands, swelling, itching, high temperature. The patient was a military person. Symptoms started 5 days ago, when he was performing military work during his service and got cuts and scrapes on hands. He rubbed the scrapes with his dusty hands. 2 days later wounds appeared on his hands. During objective examination wounds were up to 3 cm in diameter surrounded with swelling. The wounds were like raised, itchy bump resembling an insect bite that quickly develops into a painless sore with a black center (Figure 1). A complete blood count revealed leukocytosis 16,400/mm³ with

85% polynuclear cells, HGB-158 g/l, PLT- 142000. Other laboratory parameters were C-reactive protein 4.06 mg/L, creatinine 89.1 mmol/L. *Bacillus anthracis* specific real-time PCR assay targeting the genes *capA* and *pag* gave a positive result for both genes and *Bacillus anthracis* rods were found by microscopy. The patient was treated with oral ciprofloxacin, 500 mg/twice a day for 14 days. The wound subsequently detached spontaneously, leaving a 2-cm brownish-gray crust in the middle of the surrounding fibrotic area (Figure 2).

Conclusion

According to the World Health Organization, the incidence of human anthrax closely related to exposure to the affected animals. This case proves that the patient can get the anthrax after exposure of contaminated soil as spores of *Bacillus anthracis* can persist in the soil for decades.

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Figure 1: Anthrax wounds before treatment.



Figure 2: Anthrax wounds after 7 days of treatment.