CLINICAL GRAND ROUND
An Unusual Finger Lesion

CANSU CIMEN
INFECTIONOUS DISEASES & CLINICAL MICROBIOLOGY CLINIC
MINISTRY OF HEALTH, ARDAHAN PUBLIC HOSPITAL, TURKEY
Personal history

• 56 year-old woman
• Farmer (goats and sheep)
• No allergies, no smoking-alcohol history
• Lives with her grandchild (4 year-old girl)
• No medical history (personal/familial)
• Has not travelled outside of Ardahan in the past five years
Presentation at the Infectious Diseases Outpatient Clinic

• A dark-coloured swelling over her right third finger
• Oedema of the right hand
• Painless but uncomfortable

• On basic examination:
  ✓ Afebrile
  ✓ Haemodynamically stable
  ✓ No neurovascular or orthopaedic injury
Detailed history

• Four days before presentation
• Described the first lesion ‘as if it were a mosquito bite and then it became like a boil’.
• ‘The wound expanded and my hand began to swell.’
Laboratory tests

- Blood count: WBC 8.400/mm³, 68% neutrophils
- Biochemistry: CRP 0.72 mg/dl (normal: 0.5 mg/dl)
- Arteriovenous Doppler ultrasound: normal
Panel discussion - differential diagnosis
Detailed history

• Three days before of the appearance of the lesion:
  - Sudden consecutive death of several sheep
    - cutting mutton
Our Differential Diagnosis

- Herpetic whitlow
- ORF
- Milker’s nodule
- Erysipeloid
- Cutaneous anthrax
ORF

Figure 1: Transmission cycle of orf virus

Milker’s nodule

Figure 1 - Case 1: Multiple bullous violaceous lesions on the palms

https://www.researchgate.net/publication/322566144_Milker's_nodules_Classic_histo logical_findings

Mark Duffill MBChB FRCP, Department of Dermatology, Health Waikato, Hamilton, New Zealand, 2001
Herpetic whitlow

https://www.skinsight.com/skin-conditions/adult/herpetic-whitlow#who

https://medical-dictionary.thefreedictionary.com/herpetic+whitlow
Erysipeloid

https://emedicine.medscape.com/article/1054170-overview

https://www.dermatologyadvisor.com

https://core.ac.uk/download/pdf/82460864.pdf

https://www.dermatologyadvisor.com
Anthrax

The differential diagnosis of the anthrax eschar of cutaneous anthrax includes a wide range of infectious and non-infectious conditions: boil (early lesion), urticaria, bites, ulcer (especially tropical), erysipelas, glanders, plague, syphilitic chancre, ulceroglandular tularemia, clostridial infection, rickettsial diseases: ruff, vaccinia and cowpox, rat bite fever, leishmaniasis, eczema gangrenosum or herpes. Generally these other diseases and conditions lack the characteristic oedema of anthrax. The absence of pus, the lack of pain and the patient's occupation may provide further diagnostic clues.

https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/anthrax
Additional tests

• Puncture of the wound and gram stain of the sample
• Gram-positive, endospore-forming, rod-shaped bacterium
Panel comments – treatment?
Progress

Day 1

• She was started on treatment with amoxicillin-clavulanate 3gr/day.

Day 3

• The swelling began to decrease.
Progress

Day 10

• Sharp-edged, black ulcer in the middle of the wound: typical Anthrax eschar

• Oral treatment was stopped and the wound healed within two weeks, leaving a scar
Take home message

• Anthrax is still an endemic disease in some regions of our country where livestock is herded, so considering anthrax in differential diagnosis is crucial for prompt treatment in endemic regions.

• What is more, diagnosis can be made easily by the presence of a painless typical skin lesion in endemic areas and a history of contact with infected animals or animal products.
History of Anthrax
THANK YOU FOR YOUR ATTENTION!