



# CLINICAL GRAND ROUND

## An Unusual Finger Lesion

CANSU CIMEN

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INFECTIOUS DISEASES & CLINICAL MICROBIOLOGY CLINIC  
MINISTRY OF HEALTH, ARDAHAN PUBLIC HOSPITAL, TURKEY

# Personal history

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- 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

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- 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

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- 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

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- Blood count: WBC 8.400/mm<sup>3</sup>, 68% neutrophils
- Biochemistry: CRP 0.72 mg/dl (normal:0,5 mg/dl)
- Arteriovenous Doppler ultrasound: normal



# Panel discussion - differential diagnosis

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# Detailed history

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- Three days before of the appearance of the lesion:



- Sudden consecutive death of several sheep



cutting mutton



# Our Differential Diagnosis

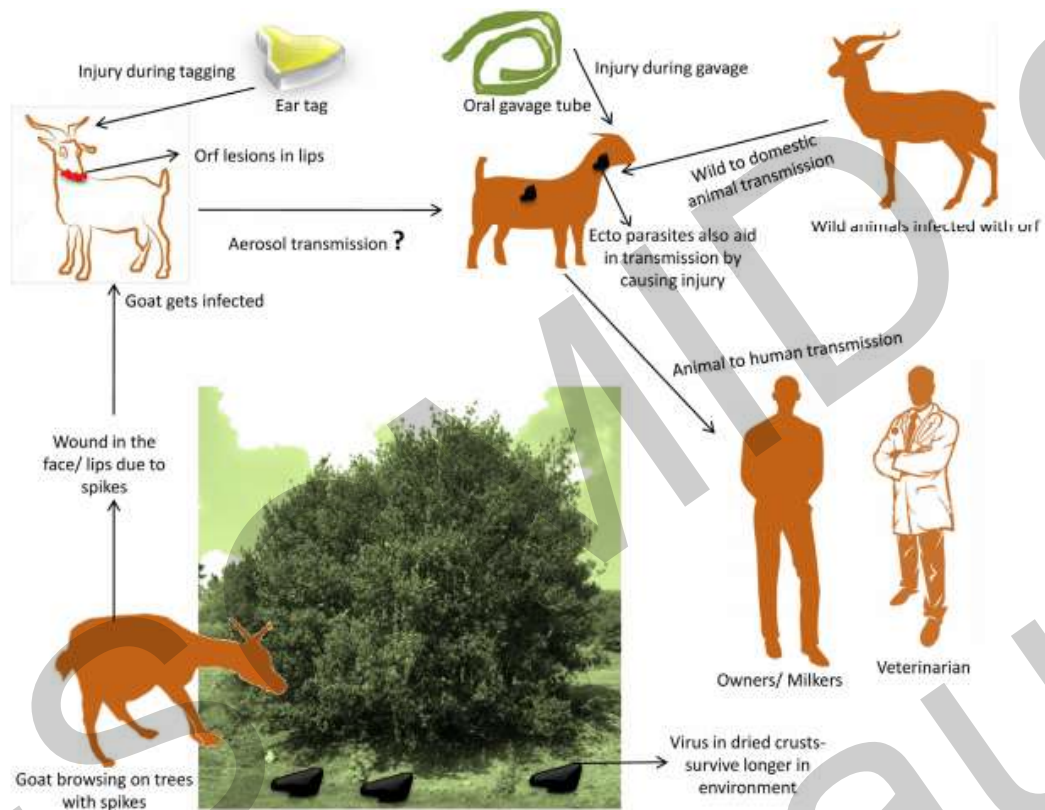
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**Herpetic whitlow**  
**ORF**  
**Milker's nodule**  
**Erysipeloid**  
**Cutaneous anthrax**



# ORF



**A viral infection of the hands: Orf**

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[https://nexusacademicpublishers.com/uploads/files/AAVS\\_Nexus\\_691\\_Kumar%20et%20el.pdf](https://nexusacademicpublishers.com/uploads/files/AAVS_Nexus_691_Kumar%20et%20el.pdf)

# Milker's nodule



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

[https://www.researchgate.net/publication/322566144\\_Milker's\\_nodules\\_Classic\\_histological\\_findings](https://www.researchgate.net/publication/322566144_Milker's_nodules_Classic_histological_findings)



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

# Herpetic whitlow



<https://www.skindsight.com/skin-conditions/adult/herpetic-whitlow#who>



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

# Erysipeloid



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

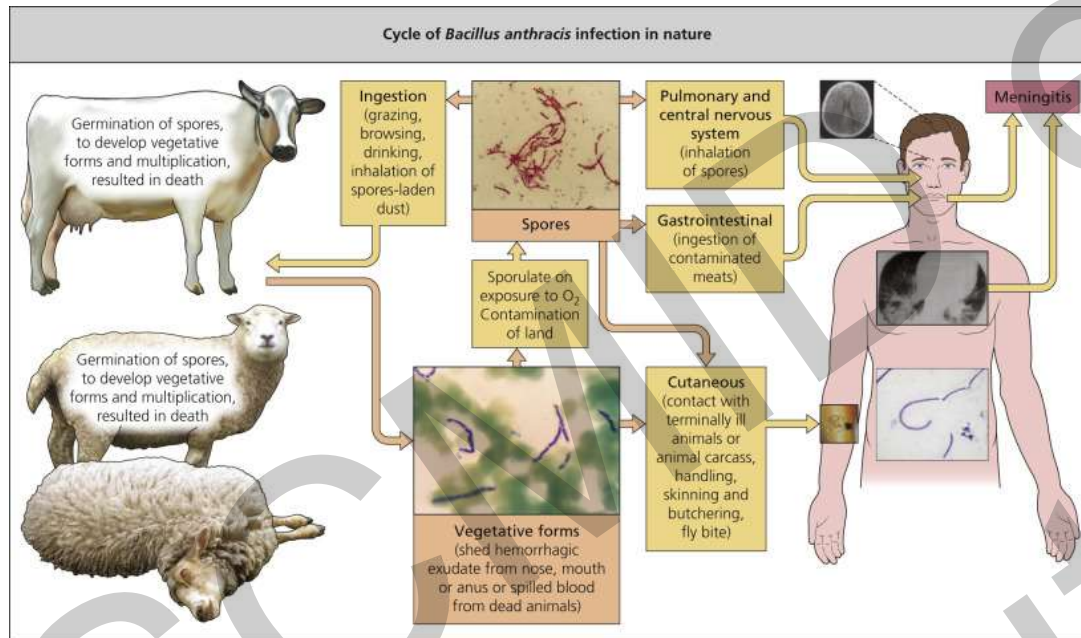


<https://www.dermatologyadvisor.com>



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

# Anthrax



<https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/anthrax>

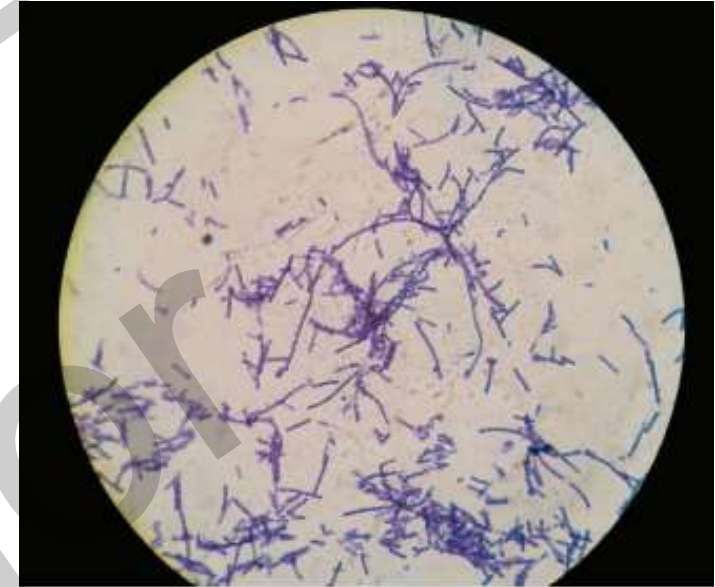


The differential diagnosis of the anthrax eschar of cutaneous anthrax includes a wide range of infectious and non-infectious conditions: boil (early lesion), arachnid bites, ulcer (especially tropical); erysipelas, glanders, plague, syphilitic chancre, ulceroglandular tularaemia; clostridial infection; rickettsial diseases; orf, vaccinia and cowpox, rat bite fever, leishmaniasis, ecthyma 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.

# Additional tests

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- Puncture of the wound and gram stain of the sample
- **Gram-positive, endospore-forming, rod-shaped bacterium**



# Panel comments – treatment?

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# Progress

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## Day 1

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

## Day 3

- The swelling began to decrease.





# Progress

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## 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

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- 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



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™



# Anthrax

in humans and animals



Oie World Organisation  
for Animal Health

World Health  
Organization

Food and Agriculture  
Organization  
of the United Nations

*THANK YOU FOR YOUR ATTENTION!*

29th  
**ECCMID** Amsterdam, Netherlands  
13–16 April 2019

 **ESCMID** MANAGING INFECTIONS  
PROMOTING SCIENCE