

A necrotising ulcer after rescuing a kitten

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DESCRIPTION

A 17-year-old previously healthy girl from the Netherlands presented with a history of 8 days of fever, malaise and a necrotic wound on her left wrist.

Two weeks before presentation she had cut herself in her left wrist. Several hours later she rescued a kitten from a ditch. The kitten was sick and died the following day. Over 2 weeks, the cut became a large red wound, blistered before turning black. In this period she was treated with amoxicillin–clavulinate and cefuroxime, cultures grew *Staphylococcus aureus*. However, these drugs had no effect on the injury.

Physical examination at the hospital showed a 2–3 cm wound on her left wrist. A necrotic ulcer was surrounded by an erythematous infiltrated area (figure 1). There were multiple painful red nodules on her left arm, reaching from the wound to her axilla (figure 2). She had a rash all over her body and a temperature of 38.2 °C.

Initial laboratory results showed: C-reactive Protein (CRP) 70 mg/L, leucocyte count 8.4×10^9 cells/L. The differential diagnosis of a necrotic ulcer includes bacterial infection (*Pseudomonas aeruginosa*), abscess, leptospirosis, anthrax and cowpox virus. From the clinical picture cowpox virus infection was suspected, PCR and serology were therefore carried out. PCR analysis and IgM serology were both positive, confirming our diagnosis. After a week her clinical condition had improved. The wound healed within 2 months, leaving a scar.

Cowpox virus infection in humans is uncommon and mainly seen in Europe. Humans in contact with infected cats, cows or small rodents can



Figure 1 Necrotic ulcer on left wrist.



Figure 2 Lymphadenitis.

become infected. Necrotic ulcer, erythema and lymphadenitis are typical presentations, flu-like symptoms might be present in the acute phase.¹ Cowpox virus belongs to the Poxviridae family and Chordopoxvirinae subfamily. Infection in immunocompetent individuals is a self-limiting disease.²

Learning points

- ▶ Cowpox virus should be considered on presentation of a necrotic ulcer and a history of contact with pets or small rodents.
- ▶ Cowpox can be diagnosed both by PCR and serology.
- ▶ Cowpox virus infection is a self-limiting disease that may take up to 6 weeks to heal. The wound may leave a scar.

Contributors All the authors were involved in clinical management of the case as well as acquisition and interpretation of the diagnostic testing. MZ wrote the article, which was critically and substantially revised by JH and AO. All authors have approved the final version of the manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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To cite: Zijlstra M, Osterhaus A, Heidema J. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-010398

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