

# Which Animal Bite Could Cause This Patient's Fever and Shortness of Breath?

Paula A. Huth, MPH, Maryrose Laguio-Vila, MD, Brenden Bedard, MPH, Elizabeth Nazarian, MT, Ammar Alkassm, MD, Byron S. Kennedy, MD, PhD, MPH, Anita C. Weimer, RN, BSN, Jillian B. Karr, MPH, and Angela M. Maxted, DVM, PhD

## Case:

A 74-year-old Caucasian male with severe Alzheimer's disease presented to the emergency department with fever, lethargy, and a rash. Four days prior to presentation, he sustained an animal bite on his right hand while alone in his home garden. His wife cleaned the wound with soap and water, but no further medical attention was sought. The patient was unable to describe the animal that had bitten him or the circumstances around the event.

Over subsequent days, he developed swelling and erythema of the right hand that extended up to the elbow, with fever, rigors, shortness of breath, and progressive difficulty ambulating.

### PHYSICAL EXAMINATION

The patient appeared comfortable but was febrile to 101.8°F. His conjunctiva were clear, with anicteric sclera and a clear oropharynx. He had no cranial nerve deficits and was able to follow simple commands and move all extremities.

His neck was supple, not tender, and he did not have cervical, axillary, or

inguinal lymphadenopathy. Respiratory, cardiac, and abdominal examinations were normal.

A dry punctate wound on the right hand between the second and third metacarpals was evident, without surrounding erythema or discharge, and there was a diffuse macular rash on his bilateral upper and lower extremities with involvement of the palms (**Figure**).

He had no joint effusions or limitations in range of motion.

### LABORATORY TESTS

Laboratory testing revealed a neutrophil predominant leukocytosis with a white blood cell count of 18,900/ $\mu$ L, 87% neutrophils (normal: 4000/ $\mu$ L–11,000/ $\mu$ L, 45% to 75% neutrophils), a mildly elevated aspartate transaminase of 38 U/L (normal 7 U/L–37 U/L), and an elevated total bilirubin of 2.4 mg/dL (normal: 0.3–1.2 mg/dL).

His urine analysis and creatinine levels were normal. A chest x-ray showed no acute cardiopulmonary abnormalities.

The emergency department physician



Figure 1. Diffuse macular rash on the patient's lower extremity.

admitted the patient, obtained blood cultures, and started intravenous piperacillin-tazobactam. Public health officials were consulted. ■

## What's Your Diagnosis?

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