Blinking Bug Bite

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CASE PRESENTATION

A three-year-old female presented to a community emergency department with a one-day pruritic rash on her knee. The patient and the parents noted that the rash blanched intermittently and that this blanching appeared to be what they called a "blinking" bug bite. Physical examination revealed a normal child with no heart murmur and two bullous lesions around the left knee that blanched in a pulsatile fashion, corresponding to the femoral pulse (Images 1 and 2, Video).

DIAGNOSIS

A review of the medical literature revealed a single "Images in Clinical Medicine" from the New England Journal of Medicine, which revealed a severe dermatitis of the lower extremities that had similar presentation.¹ No other cases were noted in the literature. The wounds were anesthetized and debrided for concern of a staph infection. The patient was placed on antibiotics and healed uneventfully. The case presented here represents an example of a physical manifestation of Quincke's sign, not related to aortic insufficiency but to the rarely-noted effect of intense arterial dilatation in the bullous inflammation of the affected subcutaneous area. Quincke's pulse is a physical finding of aortic insufficiency and, as in this case, focal arterial dilatation. Here, the arterial dilatation in the area of the bite led to an inability of arterioles to maintain sufficient pressure during diastole, resulting in the pulsating blanching and flushing that produced a "blinking" bug bite.



Image 1. The insect bite skin lesions on the knee varying in size (arrows).

Video. This recording demonstrates the blinking bug bite, a manifestation of Quincke's pulse.



Image 2. Close-up of skin lesion (arrow).

Documented patient informed consent and/or Institutional Review Board approval has been obtained and filed for publication of this case report.

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CPC-EM Capsule

What do we already know about this clinical entity? Google Scholar and PubMed reveal only one case report of a "blinking" bug bite. However, searchable online blog posts reveal similar descriptions of these bites.

What is the major impact of the image(s)? *The images here demonstrate a classic example of the "blinking" bug bite, which has not been well described in the medical literature.*

How might this improve emergency medicine practice? These images and video may act as a reference for emergency physicians to more easily diagnose this benign condition.

REFERENCES

 Lazar JD and Willis LK. A blinking knee. N Engl J Med. 2014;370(24):e36.