What’s Eating You? Millipede Burns

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PRACTICE POINTS
- The most common site of involvement of millipede burns is the foot, followed by other commonly exposed areas such as the arms, face, and eyes. Covered parts of the body are much less commonly affected.
- Millipede burns may resemble child abuse in pediatric patients; therefore, physicians should be aware of this diagnosis when unusual parts of the body are involved.

Millipedes often are regarded as harmless but are capable of causing adverse reactions through the secretion of toxic chemicals. Millipede burns cause localized pigmentary changes that may be associated with pain or burning in some patients. Clinical suspicion and physical examination are paramount to the diagnosis of millipede burns. *Cutis.* 2019;103:195-196.

Clinical Presentation
Millipedes secrete a noxious toxin implicated in millipede burns. The toxic substance is benzoquinone, a strong irritant secreted from the repugnatorial glands contained in each segment of the arthropod (Figure 1). This compound serves as a natural insect repellent, acting as the millipede’s defense mechanism from potential predators. On human skin, benzoquinone causes localized pigmentary changes most commonly presenting on the feet and toes. Local lesions may be associated with pain or burning, but there are no known reports of adverse systemic effects. Affected patients experience cutaneous pigmentary changes, which may be dark red, blue, or black, and spontaneously resolve over time. The degree of pigment change may be associated with duration of skin contact with the toxin. The affected areas may resemble burns, dermatitis, or skin necrosis. More distal lesions may present similarly to blue toe syndrome or acute arterial occlusion but can be differentiated by the presence of intact peripheral pulses and lack of temperature discrepancy between the feet. Histologic evaluation of the lesions generally reveals nonspecific full-thickness epidermal necrosis, making clinical suspicion and physical examination paramount to the diagnosis of millipede burns.

Diagnostic Difficulties
Accurate diagnosis of millipede burns is more difficult when the burn involves an unusual site. The most common site of involvement is the foot (Figure 2), followed by other commonly exposed areas such as the arms, face, and eyes. Covered parts of the body are much less commonly affected, requiring the arthropod to gain access via infiltration of clothing, often when hanging on a clothesline. In these cases, burns may be mistaken for child abuse, especially if certain areas of the body are involved.

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The authors report no conflict of interest.
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such as the groin and genitals. The well-defined arcuate lesions of the burns may resemble injuries from a wire or belt to the unsuspecting observer.

Conclusion
Although millipedes often are regarded as harmless, they are capable of causing adverse reactions through the secretion of toxic chemicals. Millipede burns cause localized pigmentary changes that may be associated with pain or burning in some patients. Because these burns may resemble child abuse in pediatric patients, physicians should be aware of this diagnosis when unusual parts of the body are involved.

REFERENCES

Figure 2. Millipede burns can mimic ischemia if located on distal extremities. Reprinted with permission from Verma and Bourke.7