

Beware Bilateral Lower Extremity Cellulitis

Cellulitis is a common bacterial infection of the skin that typically occurs after pathogens gain entry into the dermis through breaks in the skins.¹ There is no gold standard diagnostic test for cellulitis, therefore diagnosis is made clinically based on presentation and history. Cellulitis is more common on the lower extremities and presents almost exclusively unilaterally, which is consistent with the pathophysiology.² However, what should be considered when cellulitis seemingly presents bilaterally?

How often is cellulitis misdiagnosed?

In one study of 145 patients diagnosed with cellulitis by an emergency department (ED) physician, 41 (28%) cases were determined NOT to be cellulitis by dermatologists or infectious diseases (ID) physicians who saw the patient within 24 hours after admission. The most common non-cellulitis diagnosis made was stasis dermatitis. There were four cases of bilateral cellulitis diagnosed by ED physicians, which were determined to all be stasis dermatitis (Figure 1) when assessed by a dermatologist or ID physician.³ Other common mimickers of bacterial cellulitis include lipodermatosclerosis, contact dermatitis, lymphedema, eosinophilic cellulitis, and papular urticaria.⁴

What are some characteristics to distinguish cellulitis from non-cellulitis mimickers?⁴

- History of trauma/skin tear in affected area
- Systemic signs of infection (e.g. fever and leukocytosis)
- Rapid onset and progression
- In recurrent cases, history of response to antibiotics
- Immunosuppression

What is recommended?

The American Family Physician Choosing Wisely recommends avoiding routine antibiotics in patients with bilateral swelling and redness of the lower legs unless there is clear evidence of infection.⁴



Figure 1. Acute Stasis Dermatitis³

Key Takeaway: Cellulitis develops around a port of entry into skin, therefore making bilateral cellulitis an unlikely condition. Antibiotics should be held and alternative diagnosis should be considered in patients who present with bilateral leg swelling and redness.

References

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