

THE CLINICAL PICTURE

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Acute lymphangitis

A HEALTHY 49-YEAR-OLD man presented to the emergency department with rapidly progressing right arm pain and malaise. He had noticed swelling in his right fourth finger 2 weeks earlier, and 5 hours before his presentation to the emergency department, the tender erythema began spreading rapidly to his right wrist, forearm, and upper arm.

On presentation, his temperature was 37.6°C (99.7°F), heart rate 77 beats per minute, and blood pressure 101/60 mm Hg. Physical examination revealed a small paronychia on the right fourth finger and linear erythematous streaks extending spirally toward the axilla with tender axillary lymphadenopathy (Figure 1). The patient had no history of cancer, immunodeficiency, recent insect bite, or animal contact.

A clinical diagnosis of acute lymphangitis was made, and treatment was begun with amoxicillin. An 18-gauge needle was used to make an incision and drain the paronychia. His symptoms improved after several days.

■ LYMPHANGITIS

Lymphangitis is an inflammation of the lymphatic channels. Acute lymphangitis is commonly caused by a bacterial infection, but lymphangitis can also be caused by parasitic infection (filariasis), mycobacterial infection, and malignancy (neoplastic lymphangitis).

Linear erythematous streaks sometimes spread with remarkable speed—within a few hours. Acute lymphangitis is often accompanied by systemic symptoms including fever, chills, and malaise, which may appear as the initial symptoms but can develop into severe conditions such as bacteremia and sepsis.¹ The differential diagnosis includes superficial thrombophlebitis, cellulitis, erysipelas, and allergic reaction to insect bite.² However, the di-

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Figure 1. Linear erythematous streaks on the right arm extending from the paronychia on the fourth finger toward the axilla.

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agnosis is not difficult due to the characteristic linear erythematous streaks.

The organisms that most commonly cause lymphangitis in individuals with normal immunity are gram-positive bacilli such as group A streptococci.³ However, other organisms should be considered in specific cases: for ex-

ample, *Pasteurella multocida* or *Spirillum minus* in cases with animal bites, *Erysipelothrix* in cases with fish exposure, and gram-negative organisms in immunocompromised patients.

Treatment of acute bacterial lymphangitis consists of antibiotics, but surgical intervention is sometimes required. ■

■ REFERENCES

1. **Sadick NS.** Current aspects of bacterial infections of the skin. *Dermatol Clin* 1997; 15(2):341–349. doi:10.1016/s0733-8635(05)70442-3
2. **Falagas ME, Bliziotis IA, Kapaskelis AM.** Red streaks on the leg. Lymphangitis. *Am Fam Physician* 2006; 73(6):1061–1062. PMID:16570742
3. **Pasternack MS, Swartz MN.** Lymphadenitis and

lymphangitis. In: Bennett JE, Dolin R, Blaser, MJ, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 8th ed. Philadelphia, PA: Saunders; 2014:1226–1237.

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