

Refer to: Belliveau RR, Geiger F.: Lymphocutaneous *Nocardia brasiliensis* infection simulating sporotrichosis. *West J Med* 127:245-246, Sep 1977

Lymphocutaneous *Nocardia Brasiliensis* Infection Simulating Sporotrichosis

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LYMPHOCUTANEOUS SPOROTRICHOSIS presents such typical clinical features that the dermatologist concerned usually institutes therapy long before the results of the fungus culture confirm his clinical impression. On rare occasions these clinical features are mimicked by *Nocardia brasiliensis*¹⁻⁶ and may result in delay of appropriate therapy.

The actual incidence of lymphocutaneous *Nocardia brasiliensis* infections may be underestimated as a result of two factors. First, Dermatophyte test media (DTM) is a common fungus growth medium used by dermatologists and the antibiotics which it contains (cyclohexamide, gentamycin sulfate and chlortetracycline) may prevent the growth of *Nocardia* species, as was the situation in this case, and thereby prevent its isolation. Second, a recent report by Mitchell and co-workers⁶ has shown that, on occasion, lymphocutaneous *Nocardia brasiliensis* infection can be cured by therapy with supersaturated potassium iodide (SSKI) alone. This would tend to confirm an erroneous clinical impression of sporotrichosis if no proper culture were obtained. Since five of the previously reported cases were associated with either a prick of a thorn^{1-3,6} (four) or working in a garden (one),⁴ *Nocardia brasiliensis* should be considered in the clinical evaluation as a possible, although rare, cause of lymphocutaneous infections in patients who give a history of working around plants.

Report of a Case

A 37-year-old white man was seen by a dermatologist in November 1975 because of an ulcerat-

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Submitted June 8, 1977.

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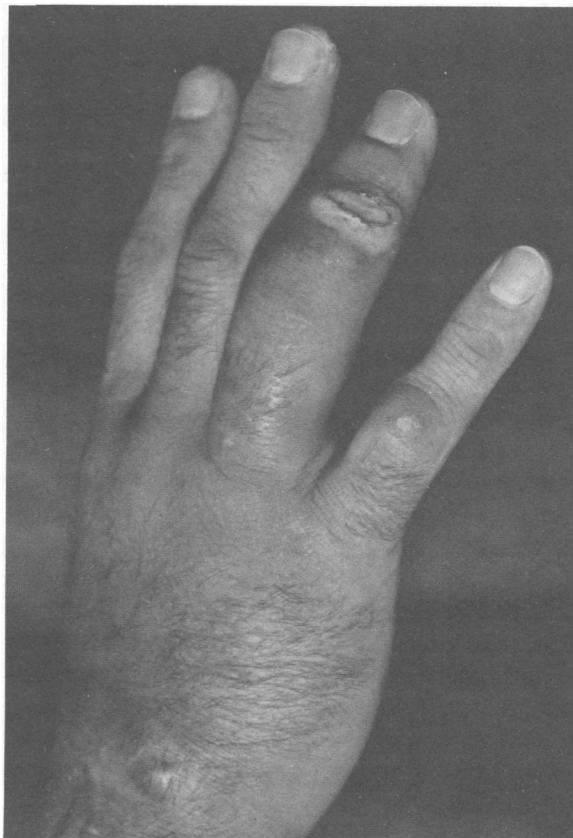


Figure 1.—Cutaneous ulceration of ring finger with lymphadenopathy of wrist.

ing lesion of the ring finger of the right hand with associated pronounced swelling of the lymph nodes on the dorsal surface of the wrist (Figure 1) and enlarged epitrochlear lymph nodes. The patient stated that he had pricked his finger on a thorn of a rose bush while working in his garden in Las Vegas 14 days previously. He was treated sequentially with penicillin, ampicillin and tetracycline, but the lesion continued to enlarge despite antibiotic therapy. The dermatologist made the clinical diagnosis of lymphocutaneous sporotrichosis, cultured the exudate on Dermatophyte test media and started the patient on a regimen of supersaturated potassium iodide, two drops three times a day.

The patient was again seen three days after his first visit, at which time the lesion had become larger. The laboratory reported that duplicate specimens from the lesion had grown a staphylococcus, coagulase positive and an organism tentatively identified as *Nocardia*. The staphylococcus infection was treated with cloxacillin. Because the lesion was clinically so typical of sporotrichosis,

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and because it was clinically felt that *Nocardia* was such an unlikely cause of this lesion, treatment with supersaturated potassium iodide was continued.

Eight days after the patient was first seen, the organism was identified as *Nocardia brasiliensis* and treatment was started with tablets combining 80 mg of trimethoprim and 400 mg of sulfamethoxazole (Septra®), two tablets twice a day. This medication was continued for two months with complete resolution of the lesion. The identification was subsequently confirmed as *Nocardia brasiliensis* by Dr. Leanore Haley of the National Center for Disease Control in Atlanta.

The characteristics of the organism were as follows:

- Acid fast: positive.
- Hydrolysis of casein: positive.
- Utilization of xantheine: negative.
- Growth in lysozyme broth: positive.
- Production of urease: positive.
- Growth at 37°C but not at 25°C.

Analysis of a specimen of serum showed IgG, 1,075 mg per dl (normal 600 to 1,200); IgM, 190 mg per dl (normal 95 to 125), and IgA, 455 mg per dl (normal 50 to 240).

Discussion

The presentation of this patient with the unusual lymphocutaneous form of *Nocardia brasiliensis* emphasizes the necessity for utilizing nonselective media in addition to the customary DTM cultures obtained on patients suspected of having fungal infections.

Summary

This report describes the first case of lymphocutaneous *Nocardia brasiliensis* reported in the state of Nevada, the seventh case reported in the United States and the first case reported in which immunoglobulin analysis of the patient's serum was done. It is easily mistaken clinically for lymphocutaneous sporotrichosis with resultant inappropriate therapy.

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Refer to: Perry MO: Ergot-induced vascular insufficiency. *West J Med* 127:246-248, Sep 1977

Ergot-Induced Vascular Insufficiency

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DURING THE MIDDLE AGES, epidemic ergotism occurred among people in northern and central Europe following the consumption of ergot-contaminated rye.^{1,2} In 1926 ergotamine tartrate was introduced for the treatment of migraine, and now most cases of ergotism are a complication of the treatment of migraine headaches and, occasionally, postpartum hemorrhage.

Three clinical forms have been identified: gastrointestinal with abdominal cramps, diarrhea and vomiting; neurologic with headache, convulsion and coma, and circulatory with ischemia. The vascular complications of ergotism appear to be the result of alpha-adrenergic blockade and direct vasoconstriction.³ In some instances there may be a toxic effect causing severe endothelial damage, thought to be the result of occlusion of the vasa vasorum. In its severe form, arterial thrombi occur, and ischemic ulceration and gangrene may eventuate.

Report of a Case

A 36-year-old woman with a long history of headaches was seen because of a ten-month history of severe left lower extremity pain. During the past four months her symptoms had worsened, and dependent rubor, swelling and tenderness appeared. Two weeks before admission a small area of skin necrosis developed on her left foot.

Because of a fracture of the ankle one year before, the patient was thought to have reflex sympathetic dystrophy and a posttraumatic pain

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Submitted March 3, 1977.

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