

# A Case of Cutaneous Tuberculosis Is Simulating Paraneoplastic Vasculitis

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We present the case of a patient with type T non-Hodgkin lymphoma, in clinical remission after treatment with chemo and radiotherapy, who was hospitalized due to hemorrhagic and necrotic skin lesions on his right hand and a clinical suspicion of paraneoplastic vasculitis.

Nonetheless, study of the patient and complementary testing led to the diagnosis of disseminated tuberculosis with skin and lung involvement (cutaneous millitary tuberculosis). Anti-tuberculosis treatment was initiated with a satisfactory resolution of symptoms and signs.

**Key words:** Extrapulmonary tuberculosis. Non-Hodgkin lymphoma. Pseudovasculitis. Disseminated tuberculosis.

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### Un caso de tuberculosis cutánea semejante a una vasculitis paraneoplásica

Presentamos el caso de un paciente con linfoma no hodgkiniano tipo T, en remisión clínica después de tratamiento con quimioterapia y radioterapia, que ingresa por lesiones cutáneas necroticohemorrágicas en mano derecha, sospechosas de vasculitis paraneoplásica. Sin embargo, el estudio del paciente y las pruebas complementarias condujeron al diagnóstico de tuberculosis deseminada con afectación cutánea (tuberculosis miliar cutánea) y pulmonar. Se instauró tratamiento tuberculostático con resolución del cuadro clínico.

**Palabras clave:** Tuberculosis extrapulmonar. Linfoma no hodgkiniano. Seudovasculitis. Tuberculosis deseminada.

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### Introduction

We present the case report of a 68 year old male with non-Hodgkin lymphoma undergoing several cycles of chemotherapy and radiotherapy that was hospitalized by rheumatology due to a paresthetic right hand with 1 month and a half-old skin lesions that suggested vasculitis. The patient was diagnosed and treated for millitary tuberculosis presenting a good outcome.

### Clinical case

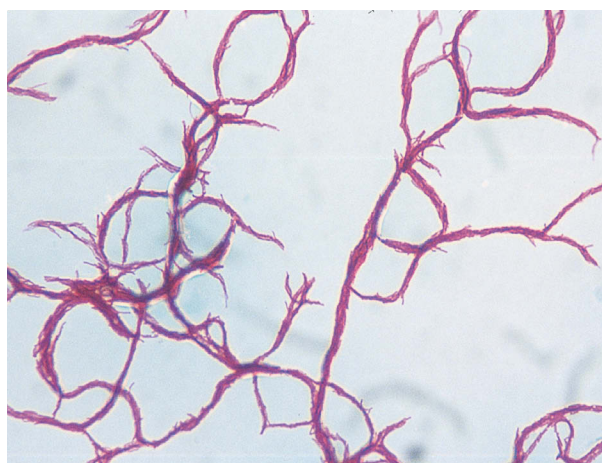
The patient had a history of diabetes mellitus, hepatocutaneous porphyria, and chronic obstructive pulmonary disease. Diagnosed in September 2001 with a type "T" non-Hodgkin lymphoma stage IIB, he had received treatment with several cycles of chemotherapy and radiotherapy. He had 2 relapses, after finding abdominopelvic adenopathy in November 2002, and a right D8-D9 paravertebral mass in October 2004. At the moment of his hospitalization (January 2006) he was in remission, persisting with pancytopenia, and having received the last cycle of chemotherapy in November 2005. One month and a half before being hospitalized by rheumatology he noticed progressive paresthesias of the right hand, with the appearance of mildly painful skin lesions. The oncology department saw him and hospitalized him in Rheumatology on January 8, 2006 under suspicion for vasculitis or arthritis.

The patient had no fever and was in acceptable general conditions. No lymph nodes were palpable. Cardiac, pulmonary, and abdominal examinations proved normal. His right hand was paresthetic but had a hypersensitive and erythematous zone in the area of the ulnar epiphysis as well as 2 dried ampoules of hemorrhagic aspect with well-limited borders on the middle phalanx of his second finger and the distal phalanx of the first finger (Figure 1; 2nd day after internment).

Laboratory studies shower a C reactive protein value of 8.7 mg/dL, erythrocyte sedimentation rate (ESR) of 55



**Figure 1.** A: 2 hemorrhagic-necrotic lesions in the 1st and 2nd fingers (2nd day after internment). B: ulcers evolved into lesions with a necrotic background (5th day after internment). C: lesions in the healing stage (16th day after internment and post-treatment).



**Figure 2.** Mycobacterium tuberculosis culture.

mm/hour, hemoglobin 9 g/dl, platelets 50 000 / $\mu$ L and leucocytes 3500/ $\mu$ L. The rest of the measurements (blood chemistry, blood proteins, coagulation tests, urine, and its sediment, autoantibodies, anticardiolipin antibodies, and cryoglobulins) were normal or negative.

An x-ray showed a small pleural effusion that had previously been described in the clinical history and the radiograph of the right hand showed a sclerotic-lytic unspecific, mixed pattern lesion on the pyramidal and pisciform bones. A thoraco-abdominal computed tomography was normal and the magnetic resonance imaging showed a marked subcutaneous tissue edema and in all muscle planes of the right hand without synovitis or bone affectation.

With the possible diagnosis of paraneoplastic vasculitis, dermatology, vascular surgery, and oncology evaluated him. An arteriogram showed a significant focal hyperemia of the 1st and 2nd fingers, the carpal region, and the tip of the 3rd finger, eliminating an ischemic cause for the process. The skin lesions evolved during a period of 3 days to ulcers with a necrotic background (Figure 1B; 5th day after internment), with the appearance of a new lesion on the tip of the 3rd finger, coinciding with the start of fever of

up to 39.5°C, mainly nocturnal and well tolerated. We started treatment with amoxicillin/clavulanate 1 g every 8 hours i.v. for 3 days, with the posterior addition of ciprofloxacin 400 mg every 12 hours i.v. during 6 more days, persisting with fever.

Samples from the skin lesions were taken for aerobic and anaerobic germs as well as mycobacteria. Acid-alcohol resistant (auramin-positive) bacilli were observed. We suspended the administration of ciprofloxacin (9 days after the image in Figure 1B was taken) and we started antituberculosis treatment with rifampin 600 mg, isoniazide 300 mg, and pirazinamide 1500 mg daily, with a progressive disappearance of fever and disappearing progressively after a week.

The lesion cultures were positive for *Mycobacterium tuberculosis* (Figure 2). Both urine and blood cultures were negative and the sputum culture was positive for *M. tuberculosis*. The booster was negative. Ulcers progressively healed and the lesion of the third fingertip did not progress into an ulcer (Figure 1C; 16th day after hospitalization).

## Discussion

Summarizing, this case illustrates a non-Hodgkin lymphoma patient that is admitted into a rheumatology department under suspicion for a paraneoplastic vasculitis syndrome. Lymphoproliferative illnesses are associated to paraneoplastic vasculitis with digit necrosis.<sup>1,2</sup> Our patient did not present Raynauds' phenomenon but, taking into account the fast progression to skin necrosis, an arteriogram was done allowed us to eliminate ischemia as a mechanism of necrosis. In spite of the fact that the diagnosis was not initially suspected by any of the specialist that evaluated the patient (rheumatologists, dermatologists, oncologists, and vascular surgeons), cultures taken from the skin lesions showed objective evidence of acid-alcohol resistant bacilli.

Cases of disseminated tuberculosis in association to tumor processes, after chemotherapy or prolonged corticosteroid therapy have been described.<sup>3</sup> Skin affection

is a rare form of tuberculosis. Our patient initially had vesicles, hemorrhage, and necrotic ulcers compatible with millitary skin tuberculosis,<sup>4</sup> a very rare form of presentation of skin tuberculosis. Isolated cases of patients with HIV induced immunosuppression,<sup>5,6</sup> renal transplant, or neoplasia have been described.<sup>7-9</sup> Progression is rapid and prognosis is poor. Tuberculin testing is commonly negative.

With the start of antituberculosis therapy, the patient had a favorable evolution with the disappearance of fever and a progressive improvement of the skin lesions. The necrotic lesion on the third finger did not progress into an ulcer probably due to antituberculosis treatment. This case reflects the fact that rare diseases with an atypical presentation (such as millitary tuberculosis on the skin) can simulate rheumatic processes and constitute a difficult diagnostic problem.

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