

## A Case of Tuberculosis Cutis Colliquativa Treated with Rifampicin and Isoniazid

Dear Sir or Madam,

A 69-year-old woman was referred to our Department because of multiple abscesses on her neck (Fig. 1). On admission, ill-defined, erythematous, freely movable nodules with purulent discharge were located on both sides of the neck (Fig. 1). No other skin abnormalities were found. The patient was hospitalized. She had a fever (38.3°C), heart rate of 65 bpm, and blood pressure of 115/80 mmHg; there were no systemic symptoms of infection, and all the systems were clinically normal. The patient had no background of immunosuppression, no family history of tuberculosis, and had never received antituberculosis vaccines. Laboratory investigations revealed neutrophil leukocytosis (WBC: 11240/ $\mu$ L, neutrophils: 85.2%), elevated C-reactive protein (1.87 mg/dL) and an elevated erythrocyte sedimentation rate (44 mm/h). The tumoral marker values were normal. Serum human immunodeficiency virus (HIV) and Venereal Disease Research Laboratory (VDRL) tests were negative. Purified protein derivate (PPD) skin tests were positive after 48 hours. According to clinical data, a mycobacteriosis infection was suspected, so a needle aspiration biopsy of the most recent skin lesion was performed and the extracted material was subjected to both microbiological examination and molecular analysis. The needle aspiration biopsy smear using the Ziehl-Neelsen stain was positive. Cultures from the skin biopsy showed growth of *Mycobacterium tuberculosis* after 8 weeks. Antero-posterior chest X-ray imaging revealed pulmonary involvement: striae, nodular fibrosis, and pleural thickening. Abdominal echography was negative. All these findings were consistent with the diagnosis of tuberculosis cutis colliquativa (TCC), the most common form of cutaneous tuberculosis in adults [1]. Antitubercular therapy was initiated with rifampicin 600 mg/day and isoniazid 600mg/day, and the lesions showed an improvement within 3 weeks of therapy. On this regimen, the

skin lesions cleared in two months. After eight weeks of therapy, the patients are usually no longer considered infectious, but still require long-term treatment for eradication, so medication was continued for a further 7 months; meanwhile, the peripheral blood count and renal and liver functions were steadily monitored. At the follow-up after 16 months, the patient remains in remission.

TCC was formerly most common among children, as a consequence of *Mycobacterium bovis* infections of the tonsils and cervical lymph nodes. Today, cutaneous tuberculosis is a rare infection, but is still present in immunocompromised patients (due to HIV, use of immunosuppressants, or malignancy), travelers, or immigrants from developing countries. *Mycobacterium tuberculosis*, *Mycobacterium bovis*, and the BCG vaccine can cause tuberculosis involving the skin. TCC can result from spreading of the tuberculosis to the skin from a deeper structure, especially lymph nodes, bones, joints, epididymis, or the lacrimal system (2). The bacteria may also be introduced into the subcutaneous tissue by a contaminated needle, such as when doing a lumbar puncture for tuberculous meningitis (3,4). In the elderly with decreased immunity, there may be a hematogenous spread with seeding of subcutaneous fat. Cutaneous tubercular abscess can occur by extension of an embolism to subcutaneous tissue (such as pulmonary foci or direct skin inoculation). However, cervical glands are the most common sites of involvement in TCC. The disease presents in a wide variety of clinical forms, depending on how the bacteria reach the skin and on the immune status of the patient. If there is an underlying tuberculous lymphadenitis or bone and joint disease, the diagnosis usually presents no difficulty: positive culture results can confirm the diagnosis. Differential diagnosis includes: *Mycobacterium avium* intracellular lymphadenitis, *Mycobacterium scrofulaceum* infection, spo-



**Figure 1.** Multiple erythematous nodules with pus discharge on the neck.

rotrichosis and other deep fungi, lymphogranuloma venereum, syphilitic gummas, actinomycosis, severe forms of acne conglobata, and hidradenitis suppurativa.

Tuberculosis is a disease of worldwide importance. Even in countries where tuberculosis is in decline, such as in Italy, there are sporadic outbreaks which are often attributed either to increased host susceptibility or increased strain transmissibility and virulence. Tuberculosis is often an occult disease, diagnosed during screening for other diseases or, most frequently in the dermatologic field, during screening before starting immunosuppressive treatment (5). The present case highlights that dermatologists, as well as other specialists, should still suspect a mycobacteriosis in patients presenting with atypical or non-healing skin lesions suggestive of an underlying infectious etiology (6-9).

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Received: October 24, 2012

Accepted: February 15, 2014.