enhance immunologic protection against disease progression. Reduction in lesion size is rare in AE, even after benzimidazole therapy, and stabilization of lesions is usually considered an indicator of impairment of parasitic growth and of clinical improvement [1, 8]. This observation could indicate an early effect of IFN-α2a on the cells that infiltrate the lesion locally, before it may be apparent for the circulating cells.

Although a potential additive effect of HCV itself on the cytokine profile cannot be ruled out [9], this unique observation of a concomitant infection by *E. multilocularis* and HCV in the same patient treated with IFN-α2a strongly suggests that IFN-α2a could be used as an immunomodulatory agent in human AE. IFN-γ and IL-12 are the only cytokines that have been experimentally tested for their therapeutic effects and were shown to be partially [5] or totally [10] effective for controlling parasitic growth. Because of the extreme severity of AE and its resistance to chemotherapy [1], experimental studies and clinical trials should be developed to test the usefulness of IFN-α2a as treatment of AE.

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There was a 2 × 2-cm lesion present on the patient’s right upper arm. The surface was scabbed over and friable. There was a halo of indurated tissue beneath the lesion that was nontender. No axillary or epitrochlear lymphadenopathy was noted.

Biospy of the lesion revealed only necrotic tissue with overlying skin. Analysis of imprints showed numerous acid-fast bacilli. Therapy with isoniazid, rifampin, and ethambutol was started based on identification of acid-fast bacilli on the touch preparation.

The three punch biopsy sites coalesced to form an ulcerated lesion 2 weeks after the procedure. One month after biopsy, the lesion became superinfected. Right axillary lymphadenopathy was noted. There was no change in the size of the lesion; however, the halo of induration was absent. Cephalexin was added to the patient’s therapeutic regimen for 2 weeks, which resulted in clearing of the superinfection.

Six weeks after biopsy, the lesion was essentially unchanged with the exception of the appearance of a sinus. Since there was no response to isoniazid, rifampin, and ethambutol, therapy with trimethoprim-sulfamethoxazole was initiated. After 3 weeks of trimethoprim-sulfamethoxazole therapy, the lesion decreased, but the patient developed a severe rash, urticaria, and pruritus. Therapy was changed to tetracycline hydrochloride (500 mg q.i.d.). Two weeks later, because of severe nausea, therapy was changed to doxycycline (100 mg b.i.d.). A CT scan of the arm was obtained at this time (figure 1). After 5 months of doxycycline therapy, the lesion had significantly decreased in size and crusted over.

Acid-fast bacilli were recovered after 2 months of incubation on chocolate agar at 30°C. The organism was identified as *Mycobac-
Risk of Tuberculosis in Tuberculin Skin Test–Positive Liver Transplant Patients

Despite an increased risk for active tuberculosis (TB) in transplant patients, there is no consensus regarding the appropriate treatment of asymptomatic TB infection [1]. In part, this lack of consensus is because the risk of active disease in liver transplant patients infected with Mycobacterium tuberculosis remains unknown. Thus, we conducted a retrospective analysis of tuberculin skin test (TST)–positive liver transplant candidates and recipients at Stanford University Medical Center (Stanford, CA) from 1988 to 1998.

There were 751 liver transplant patients and candidates. Patients who had a reactive TST with a normal chest radiograph and no clinical evidence of active TB were identified and classified as having received chemoprophylaxis of proven efficacy (isoniazid, 300 mg daily for >6 months) [2], chemoprophylaxis of unapproved or inadequate efficacy, or no chemoprophylaxis. The incidence of disease was calculated by person-years of follow-up, which was determined as the duration of care from the date of the first visit to the date of the last visit. A P value of <.05 was used to define statistical significance.

Of 273 patients for whom TST results were available, 46 (16.8%) had positive results, and 227 (83.2%) had negative results. The 46 patients with positive TSTs were more likely to be foreign-born and of Asian descent than were the patients with negative TSTs (P < .0001). Of these 46 patients, 5 (11%) had received prophylaxis of proven efficacy, 12 (26%) had received prophylaxis of unapproved or inadequate efficacy, and 29 (63%) had received no prophylaxis. The mean duration of follow-up for the 46 patients was 29.6 months. Only 17 TST-positive patients (36.9%) who were eligible for prophylaxis developed TB; there was also one patient who developed TB without these risk factors. The incidence of TB among all 751 liver transplant candidates and recipients was 73.4 cases per 100,000 person-years. Among TST-positive individuals, the rate increased to 22% [3]. How-

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