Isoniazid with Corticosteroids in Patients Infected with *Mycobacterium tuberculosis*

**To the Editor:**

Dr. Eshelman's recent communication raises several interesting questions about the role of preventive treatment with isoniazid for individuals infected with *Mycobacterium tuberculosis* who are receiving therapy with corticosteroids.

There is evidence that therapy with corticosteroids can exert a variety of undesirable effects on the course of tuberculous infection and disease. Unfortunately, the exact risk to the patient is not well defined. This results, in part, from the varying dosages and preparations of corticosteroids prescribed, from the wide variety of underlying disease for which therapy with steroids is given, and from the other concomitant risk factors for tuberculosis present in some of these individuals. The use of alternate-day corticosteroid regimens, which seem to leave delayed hypersensitivity intact and to be attended by fewer infectious complications, further confounds the issue.

In the absence of data clearly indicating that the risk of therapy with corticosteroids for persons infected with tubercle bacilli is related to dosage or is reduced by alternate-day therapy, we believe that current guidelines for preventive therapy of tuberculous infection should be followed. Patients with a positive tuberculin test who are receiving prolonged therapy with corticosteroids should be considered at increased risk of developing tuberculosis, whether the steroids are administered on a daily or alternate-day basis, and should, therefore, be considered as a priority group for receiving preventive therapy with isoniazid. This preventive approach recognizes the potential consequences of tuberculosis for these patients, as well as for persons exposed to them.

Jeffrey L. Glassroth, M.D.
and Laurence S. Farer, M.D., M.P.H.
Tuberculosis Control Division
Center for Disease Control, Atlanta

**Granulomatous Pleuritis Secondary to Blastomycosis**

**To the Editor:**

Patients with pleural effusion of unknown etiology frequently undergo needle biopsy of the pleura. The finding of granulomatous pleuritis with or without caseous necrosis is considered strong evidence for a tuberculous cause of the effusion. The following case is presented to demonstrate that diseases other than tuberculosis may be responsible for granulomatous pleuritis.

**CASE REPORT**

A 62-year-old woman was referred to Confederate Memorial Medical Center for evaluation of a left pleural effusion. She had been well until two months prior to admission, at which time she developed a productive cough, malaise, chills, fever, and left-sided pleuritic chest pain. At this time the patient was treated with penicillin and rapidly became asymptomatic; however, several weeks later, she noted the insidious onset of dyspnea on exertion and fatigue. A subsequent chest x-ray film showed a large left pleural effusion.

Physical examination at the time of admission revealed an afibrile chronically ill appearing woman with signs of a left pleural effusion. Several smears of sputum for acid-fast bacilli and fungi and the skin test with intermediate-strength purified protein derivative of tuberculosis (PPD) were negative.

A thoracentesis yielding 1,500 ml and a pleural biopsy were performed. The pleural fluid was yellow and had a protein level of 6.6 gm/100 ml, a glucose level of 117 mg/100 ml, and a lactate dehydrogenase level of 226 milliunits/ml, with a simultaneous serum protein level of 7.7 gm/100 ml and a lactate dehydrogenase level of 192 milliunits/ml. The cell count of the pleural fluid was 3,150/cu mm, and 85 percent were small lymphocytes. The pleural biopsy revealed multiple granulomas with minimal caseous necrosis centrally. Smears

**REFERENCES**

of the pleural fluid and stains of sections of tissue from the pleural biopsy were negative for acid-fast bacilli and fungi. A presumptive diagnosis of tuberculous pleuritis was made, and the patient was discharged on a regimen of isoniazid and ethambutol.

Three weeks later, cultures of both sputum and pleural fluid were reported to be positive for Blastomyces dermatitidis. The patient had lost 0.9 kg (4 lb), and her left pleural effusion was still present. The fungal complement-fixation test for Blastomyces was positive at a titer of 1:64. The patient was treated with 1,425 mg of amphotericin B, and after five months, her chest x-ray film was normal. Her intermediate-strength PPD skin test remained negative.

**DISCUSSION**

A patient with an exudative pleural effusion and evidence of granulomatous disease on pleural biopsy is generally presumed to have tuberculous pleuritis. In two large series, granulomatous pleuritis was found in 213 specimens from pleural biopsies, and even though proof by culture was lacking in 109 of the patients, all were considered to have tuberculous pleuritis. Like the patients in these series, our patient was originally thought to have tuberculous pleuritis.

It is known that fungal disease of the pleura can produce granulomatous pleuritis. Schub and associates reported three cases of granulomatous pleuritis secondary to histoplasmosis, and Brewer and Himmelwright reported one additional case. Sokolowski et al. reported a case of granulomatous pleuritis secondary to cryptococcosis. The granulomatous pleuritis in each of the previous instances was found at open thoracotomy.

Pleural involvement is believed to be uncommon with blastomycosis. In the Veterans Administration cooperative study of 198 patients with blastomycosis, only four patients had pleural effusion, and in only one was the culture of pleural fluid positive for blastomycosis; however, a recent report of 50 cases from our hospital showed pleural changes in 13 (26 percent).

It should be stated that granulomatous pleuritis may at times occur with noninfectious diseases. A small percentage of patients with sarcoidosis or with rheumatoid pleuritis will have an exudative pleural effusion with granulomas on aspiration biopsy of the pleura.

Although the great majority of patients with granulomatous pleuritis will have tuberculosis, a small percentage will have fungal disease. Therefore, fungal smears and cultures of the sputum and pleural fluid should be obtained from all such patients.

**ACKNOWLEDGMENT:** This study was supported in part by pulmonary academic award HL 70359 from the National Heart and Lung Institute.

Owen Nelson, M.D.
and Richard W. Light, M.D., F.C.C.P.
Pulmonary Diseases Section, Department of Medicine
School of Medicine
Louisiana State University, Shreveport

**REFERENCES**


**The Professional Cardioversion Patient**

A New Medical and Psychiatric Entity

**To the Editor:**

Conversion of cardiac arrhythmias by electrical countershock is a well-established medical treatment which may generate higher-than-justified hopes for patients whose cardiac problems are interwoven with strong emotional factors. Such patients need not only immediate medical care, but also psychiatric consultation geared toward crisis intervention. The following abstract of a clinical case describes such a patient:

**CASE REPORT**

On Nov 7, 1974, a 54-year-old white man came to the emergency room of a large, voluntary, not-for-profit hospital for treatment of shortness of breath and severe chest pains of a few hours' duration. The past history included bronchial asthma for the last three years and a cardiac arrhythmia for the last 18 months, for which the patient had undergone several unsuccessful cardioversions. He was rather vague as to specific details of where these procedures took place.

On further questioning, the patient stated that he had been a patient at two leading hospitals in New York City for similar problems. His history of medications included quinidine, aminophylline, and choline theophyllinate (Cholecyldyl).

The physical examination revealed an obese white man in no acute distress, who seemed to be very much up-to-date in medical terminology. Expiratory wheezes were audible. The pulse rate was 90 beats per minute and irregular. The patient had two fresh marks on his chest that look like marks from cardioversion, but he refused to admit that he