EDITORIALS

Care of Tuberculosis Patients in the 1970's. After the Sanatorium, Then What?

Tuberculosis is a tenacious chronic infection for which no quick cure is yet available. Successful therapy entails expert use of multiple drugs initially, followed by prolonged, less intense chemotherapy while the patient returns to a normal life. Close contacts must be surveyed to detect new infections if disasters of the future are to be averted. Reduction in the number of patients and the efficacy of chemotherapy have now made it possible to return the therapy of tuberculosis to the mainstream of medicine. The purpose of this communication is to define a minimum program for the care to patients with tuberculosis and to point out the dangers of doing less than this minimum.

For several years, the Committee on Treatment of Tuberculosis in General Hospitals of the American Thoracic Society has worked on this problem and has published several statements. Yet, Tuck and Tyler* found that none of the general hospitals in New England was even aware that they were being called upon to assume the responsibility for the care of patients with tuberculosis. It is apparent that our efforts must be intensified.

Dr. Robert Johnston (NTRDA Bulletin, January, 1970) discussed the treatment of tuberculosis patients in regional centers versus all general hospitals and concluded that the best compromise would be the selection of certain general hospitals in which appropriate out-patient services would be provided by facilities for necessary hospitalization in close cooperation with the local health department. I would endorse this plan and urge that we press for its implementation. Unless such arrangements are made post-haste, we shall find that the personnel with the necessary training and experience will have transferred to other fields and our chance to make a reasonable transition will have been lost.

who can make patients actively like to attend the clinic for supervision of therapy.

Unless services of the kind described can be provided, it is likely that the care of patients with tuberculosis will fail. Some may take the view that tuberculosis can be treated in every general hospital, just as pneumonia and appendicitis are. But these are diseases which are so common that general physicians and surgeons have considerable experience with them and they are acute conditions which require no continuity of care. But for tuberculosis, where continuity of care is paramount, it is necessary to concentrate the relatively few cases in the hands of a few physicians who are expert enough to give proper longterm care. Such an approach is being used more and more today with a variety of conditions: obstetrical care, renal dialysis, care of burn patients, organ transplantation, etc. The care of patients with tuberculosis can present problems which require considerable expertise. To develop it, some physicians must have considerable experience, not all physicians treating a case or two every year or two. The time is ripe to develop such facilities. The Committee on Tuberculosis of the American College of Chest Physicians is presently preparing guidelines to help selected general hospitals in providing the necessary services for this special group of patients whose care is so important to the individuals concerned and to the public health.

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Histoplasmosis—Quo Vadis?

It has been said that, "Anything tuberculosis can do, histoplasmosis can do better." Certainly the numerous case reports of histoplasmosis have emphasized that this is a disease that can mimic not only tuberculosis, but an imposing array of other pulmonary and systemic diseases.

Histoplasmosis is a not uncommon infection. Current estimates indicate some 40 million persons have been infected by *Histoplasma capsulatum*. A significant proportion of the more than 500,000 annual infections will develop disease severe enough to require medical attention.

Because of the magnitude of infection and/or disease and the difficulties in diagnosis, a Second National Conference on Histoplasmosis was held recently in Atlanta. The purpose of this Conference, sponsored by the University of Kentucky Medical Center, the University of West Virginia Medical Center, the National Communicable Disease Center, and Lederle Laboratories, was to bring together the developments in the study of histoplasmosis since the first national conference in 1952.1

Techniques for the diagnosis of histoplasmosis have been greatly improved by refinements in the complement-fixation test (notably comparisons with the simultaneous use of mycelial and yeast phase antigens) and by the agar-gel or immunodiffusion test. However, cross-reactions with other fungi are still a major problem.

Work is currently in progress in several laboratories to develop purified antigenic fractions from both yeast phase and mycelial phase *Histoplasma capsulatum*. Preliminary reports indicate purified antigenic fractions give less frequent cross-reactions and appear to have improved sensitivity. There is difference of opinion as to whether mycelial or yeast fractions should be used. Some feel that, since the mycelial phase is the one with which the individual first comes into contact and which initiates the infection, the mycelial phase provides a better source of antigen with the desired specificity and sensitivity. Others feel the yeast phase to be preferable, since this is the phase which propagates in the body and which provides a continuing source for antibody stimulation.

Further work will emphasize studies on hypersensitivity. It has been obvious for some time that humoral antibodies have little or no apparent role in protection against histoplasmosis; indeed, the titers tend to vary directly with activity of the lesion. Cellular immunity, long postulated, is now being investigated by use of new techniques, such as migration inhibition, lymphoblast transformation, and other tests. Early studies have indicated persons with histoplasmin reactivity do indeed exhibit cellular immunity, and that this may vary with the disease process. Further work is needed to define the pattern of cellular reactivity and/or hypersensitivity, and to determine their relationship in the best response leading to cure or dissemination.

Once diagnosed, there is still the question as to whether or not the patient requires antifungal therapy. Fortunately, most infections do not require treatment. For those who do, the drug of choice remains amphotericin B. Despite a variety of modifications in dose spacing and concomitant usage of corticosteroids, heparin, antipyretics, and analgesics, toxic reactions to the drug remain a major problem. Even more distressing is the relapse rate which becomes apparent with long term follow-up. Although several other antifungal agents, saramycetin, hamycin, etc., have been tried in recent years, amphotericin B remains the choice. There is a definite need for new, less toxic, effective antifungal.