CHLORPROMAZINE (THORAZINE) FOR MENTAL ILLNESS IN THE
PRESENCE OF PULMONARY TUBERCULOSIS*

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INTRODUCTION

Chlorpromazine (thorazine) has been shown to be a powerful tranquilizing drug, particularly useful in the treatment of anxiety symptoms and in the relief of agitation, restlessness and overactive behavior in mentally ill patients. It was decided to use it in the Edgewood Division of Pilgrim (N. Y.) State Hospital where there are over 2,000 tuberculous mentally ill patients. The effects of chlorpromazine on tuberculosis had not been reported. This subject was investigated and is the basis of this report.

The effects of intercurrent conditions on tuberculosis are unpredictable and can be studied only empirically. For example, excessive sunlight has been shown to be harmful in pulmonary tuberculosis, although ultraviolet light is used as a treatment in other forms of tuberculosis. One would predict that thyroid extract and the hyperthyroid condition which cause loss of weight, sweating, increase in pulse rate, more rapid circulation time and rapid respiration would be harmful to tuberculosis patients who require rest; but, on the contrary, a hypothyroid condition is harmful, whereas hyperthyroidism is not. Cortisone and ACTH, although relieving tuberculosis symptomatology, are distinctly harmful; nevertheless, cortisone is now being used in combination with antituberculosis drugs in the therapy of tuberculosis. Iodides and iodized oils are also considered dangerous, yet iodized oil instillation into lungs has been performed repeatedly, even in the presence of active tuberculosis, without harm.1 Electric convulsive treatment has been shown to be relatively safe in the presence of active tuberculosis.2

Because of these unpredictable results, it was felt that chlorpromazine had to be investigated by clinical experiment before it could be freely used in patients with active tuberculosis. Moreover, there were some reasons to suspect that it might be dangerous: It has been reported to cause jaundice, and the influence of impaired

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liver function on the production of antibodies in the presence of an infectious disease might be important; it occasionally causes granulocytopenia, with its usual effects on resistance to infectious disease. Chlorpromazine is a powerful depressant of both divisions of the autonomic nervous system which might affect the symptomatology of tuberculosis, as toxic symptoms are manifested through the autonomic system—for example, night sweats, tachycardia, gastro-intestinal symptoms (such as anorexia and diarrhea.) The amount of sputum and its consistency are under the influence of the autonomic system and a thin, profuse sputum would be distinctly dangerous to a patient with tuberculosis, as it tends to cause a spread through the bronchial tree, while a thick tenacious sputum would interfere with bronchial drainage. It causes unpredictable hypo- and hyperpyrexia.

Chlorpromazine belongs to the antihistaminic group of drugs; and, although supposedly relatively inert as an antihistaminic agent, the possibility of influencing the allergic state of the tuberculosis patient could not be overlooked, as the hypersensitivity reaction is believed to be an important element in the toxicity of tuberculosis. On the other hand, there was the possibility that, through its sedative effect on the emotions, chlorpromazine might have a beneficial effect on the tuberculosis patient, who, it has been repeatedly shown, is adversely affected during emotional crises.

The importance of being able to use thorazine freely for mental patients with tuberculosis so that they might have the benefits of an effective new therapy for mental disease was the chief interest of the author; but the possibility of its usefulness in the management of patients under home or sanatorium treatment for tuberculosis transcends this in importance, because of the vastly greater number of patients involved. Anxiety, guilt feelings and depression are common symptoms in many serious and chronic illnesses but they are particularly important in tuberculosis. Wittkower, et al. have shown a very high percentage of psychological disorders in a group of tuberculosis patients they studied. When they compared patients with favorable courses in their tuberculosis with those who had unfavorable courses, they found that unfavorable courses were significantly correlated with the presence of psychological complaints, manifested by spells of acute anxiety, phobias, guilt feelings, depression, and so on. Pent-up anxiety is dis-