CHRONIC PULMONARY HISTOPLASMOSIS

Gerald L. Baum, M.D., and Jan Schwartz, M.D., Cincinnati, Ohio

From the American Journal of Medicine, December 1962 (33, 873)

Chronic pulmonary histoplasmosis is an inflammatory disease caused by invasion of the lungs with the fungus Histoplasma capsulatum. It commonly presents the same X-ray and clinical features as pulmonary tuberculosis. It is not uncommon in the USA, where it is most seen in men over 40, and if it is not treated its outcome is generally fatal.

It appears that in primary histoplasmosis the organisms die as the lesion heals, and that the chronic condition results from re-infection of exogenous origin.

In the past 7 years we have dealt with 20 cases of chronic pulmonary histoplasmosis, all male, 19 White and 1 Negro. The ages ranged from 30 to 76 (10 over 60 and only 1 under 40). The symptoms were usually like those characteristic of chronic pulmonary tuberculosis; weight loss, weakness, night sweats, cough, purulent sputum, haemoptysis, fever, anorexia and progressive debility were common. All were ill for a period ranging from several months up to years before treatment was begun (except the youngest patient, aged 30, who had been ill for only 4-6 weeks, with suppurative pneumonia). The physical findings were those of chronic debilitating illness with cavitation in the lungs.

The diagnosis was based on the recognition of H. capsulatum. The sputum was positive in 16 cases, and the organism was demonstrated histologically in the lungs in 10 out of the 11 cases where it was sought, including the 4 cases with negative sputum. The diagnostic titre of the patients varied from 1:32 to 1:512.

On X-ray and anatomical evidence, the upper lobes were involved in all 20 patients, bilaterally in 15, and the lower lobes in 7 only. Cavitary was present in 17 cases, exclusively in the upper lobes, bilaterally in 7. The histoplasmin skin test was positive in 12 of the 15 patients in whom it was performed. The 3 negative results were in debilitated patients aged 62, 66 and 76. The complement-fixation test was carried out with both yeast-phase and mycelial-phase antigens in 15 patients. Only one gave a negative reaction to both antigens. All the others showed positive titres of at least 1:32 with the yeast antigen and 1:4 with the mycelial antigen. These tests elicited no definite diagnostic or prognostic pattern.

Treatment with amphotericin B was applied in 11 patients, in 9 intravenously only and in 2 orally as well. The total intravenous dosage varied from 805 to 6,000 mg. Side-effects were noted in all patients except one; intravenous therapy had to be discontinued in one case owing to severe toxic reactions. Of the 11 treated, 8 are living and apparently free from active histoplasmosis after a follow-up ranging from 3 to 32 months. One patient required a second course of treatment after an interval of 11 months. In the 3 treated patients who died, death was due respectively to progressive histoplasmosis, to carcinoma of the lung with no evidence of active histoplasmosis, and to acute cardiac arrhythmia with active histoplasmosis of the lungs but none of the heart.

Six of the 9 patients not treated with amphotericin died, 5 of histoplasmosis and one of ruptured aortic aneurysm with widespread pulmonary histoplasmosis. The surviving 3 patients are well and free of active histoplasmosis after a follow-up of 1, 4 and 4 years. In one of the 3 the cavity was resected.

Surgery was performed in 5 cases—resection of the cavitated upper lobe in 3 (all recovered, after follow-up of 4 years, 6 months and 3 months); and other operations in 2 (one for drainage of cavity followed by amphotericin, resulting in temporary improvement but ultimate death from carcinoma of the lung). Complicating conditions were specially noted in 7 cases, viz. 4 (2 died) with intercavitary aspergilloma (fungus ball), one (recovered) with pleural effusion positive on culture for H. capsulatum, one with acute suppurative pneumonia (eventually developed tuberculosis), and one benign spontaneous pneumothorax developing during treatment (recovered).