

occurred until eight years before admission when a diagnosis of bronchiectasis was made. After that she had persistent dyspnea and tachycardia. Two years before admission cyanosis and finger clubbing were noted. Eighteen months before her first admission she began to use an oxygen tent at night and oxygen by mask intermittently during the day. She was admitted from June 13 to 27, 1950 for study, and was readmitted on September 20. A diagnosis of pulmonary fibrosis of unknown cause was made, after a careful but unavailing search for tuberculosis and other specific causes.

Physical findings at the second admission included a blood pressure of 150/80; pulse and respiratory rates were excessively accelerated with slight exertion. The patient was grossly cyanotic, dyspneic and orthopneic, and there was marked clubbing of the fingers. Retinal examination showed dilated and tortuous veins. Chest examination revealed generalized coarse crackling rales on inspiration and expiration, with only fair costal margin excursions. The second heart sound (P_2) was accentuated. There was no peripheral edema.

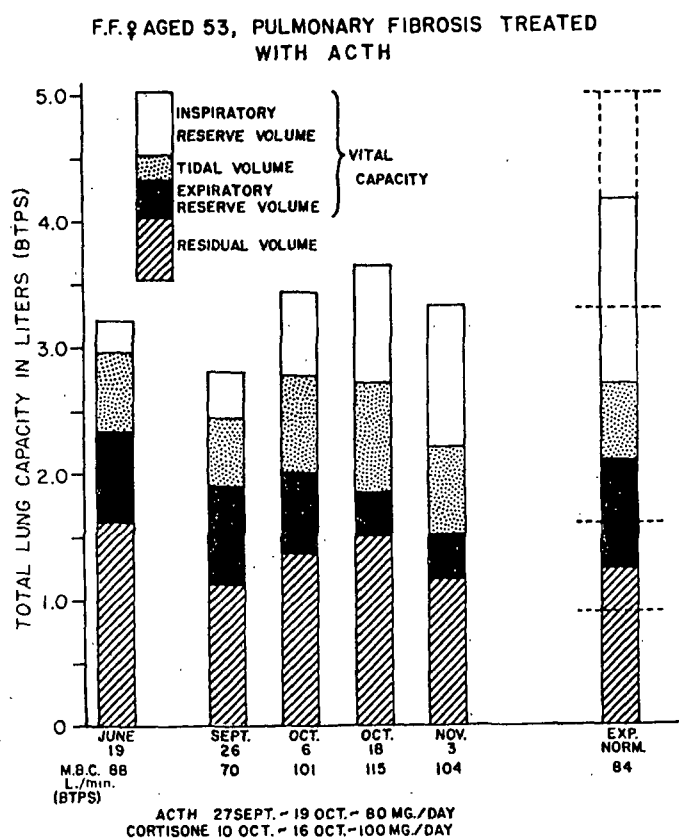


Chart 1 (case 1).—The patient's pulmonary volume subdivisions and maximum breathing capacity (M.B.C.) are shown in relation to her treatment with ACTH and cortisone. The last column on the right indicates by broken lines (---) the limits of normal for the residual volume and the total lung capacity (mean ± 2 standard deviations). BTPS is explained in the text under "methods."

A chest roentgenogram during the second admission showed some increase in the markings consistent with a progression of the disease. During the course of therapy, lung markings showed slight improvement. A chest roentgenogram on October 14 showed cardiac enlargement with a prominent pulmonary artery. Electrocardiograms showed inverted T waves in V_1 and V_2 which had not been present before. The rate was 86 per minute with a PR interval of 0.16 second and a QRS of 0.08 second. These findings were interpreted as consistent with myocardial changes in the right ventricle.

Pulmonary function studies (chart 1 and table 1) on September 26, as compared with June 19, showed a questionably significant change in residual volume and no change in vital capacity. Her maximum breathing capacity had diminished from 88 to 70 L. per minute.