

November 20 his weight was 145 lb. (66 Kg.) and, although he was not feeling as well as when he was under active treatment, he considered himself much improved over the pretreatment period.

CASE 3 (man, aged 27, University Hospitals no. 296-736).—*Industrial History*.—N. B. was employed in a factory where beryllium-containing phosphors were manufactured from Sept. 5 to Oct. 7, 1944, and during this period he had only 25 days of actual exposure. He worked eight hours a day mixing fluorescent powders in barrels with a shovel, loading revolving ball mills, charging ovens and breaking up lumps of the heated material. A respirator was worn most of the time and, in fact, he voluntarily quit the job because he was not content to wear the protective mask.

Medical History.—About July 1948 he first consulted a physician regarding his health. At that time he was losing weight and had a severe cough, general tiredness and shortness of breath on exertion. No definite diagnosis was made, however, until a chest roentgenogram was made in March 1949 during a city-wide tuberculosis survey.

He was admitted to Crile Veterans Hospital on May 2, 1949, where a diagnosis of chronic beryllium poisoning was made. He felt better while resting there, although his weight fell from 150 lb. (68 Kg.) on admission to 146 lb. (66 Kg.) at the time of discharge on June 22, 1949. During the next year he was too ill to work, and his weight continued to decrease. On July 1, 1950 he was admitted to the University Hospitals for ACTH therapy.

Physical Examination.—His temperature was 37.4 C. (99.3 F.); pulse rate, 100; respiratory rate, 20; blood pressure, 120/80. He was thin and appeared to be chronically ill but was comfortable at rest in bed. There was cyanosis of the lips and the nail beds with advanced clubbing. The heart was normal. Except for an occasional rhonchus in the chest, the lungs were clear to ordinary examination.

Pertinent Initial Laboratory Findings.—Most of the results of the laboratory studies are listed in table 1. In addition, the chest roentgenogram showed the classic diffuse fine granularity so characteristic of these cases. There were no areas of emphysema.

Hospital Course and Progress Report.—Administration of ACTH was begun on July 6, 1950, after the routine testing procedure described for the other cases. Within two days the patient began to feel much improved, and his cough and shortness of breath lessened (figs. 6 and 7). His appetite soon became enormous, and for a three-week period his caloric intake averaged 5,274 per day. His weight increased rapidly, so that he gained 19 lb. (8.5 Kg.) during the 23-day period of hospital treatment. Slight clearing of the lungs, particularly of the upper half of each lung, was noted in the chest roentgenogram, but the bases remained unchanged. During the three months of treatment he continued to improve, and when ACTH therapy was discontinued, on Oct. 9, 1950, he was able to return to light work.

CASE 4 (man, aged 34, University Hospitals no. 301-168).—*Industrial History*.—G. R. worked from March 5 to Oct. 6, 1945 in a factory where beryllium-containing fluorescent powders were manufactured. He weighed and mixed the phosphor. Although it was a dusty operation, he was not required to wear a respirator.

Medical History.—He had enjoyed good health for the most part until the summer of 1948, when he noticed increasing tiredness and shortness of breath on exertion. During the next two years there was a loss of 50 lb. (22.5 Kg.) in weight. In spite of these symptoms, he continued at his regular work, that of supervising a small curtain laundry, of which he was the owner. Finally, in August 1950, a diagnosis of pulmonary granulomatosis probably resulting from beryllium exposure was made by the county tuberculosis clinic when the patient reported for a routine roentgenologic examination of the chest. He was admitted to University Hospitals for ACTH therapy on Sept. 27, 1950.

Physical Examination.—His temperature was 36.8 C. (98.2 F.); pulse rate, 76; respiratory rate, 16; blood pressure, 135/85. He was poorly nourished and was cyanotic but in no respiratory distress while lying flat in bed. The lungs were hyperresonant, and there were many fine rales at the bases. The heart sounds were normal. There was no clubbing of the fingers.

Pertinent Initial Laboratory Findings.—Most of the results are listed in table 1. The chest roentgenogram showed the characteristic granular shadows scattered throughout both lungs except at the bases, where the abnormal shadows were obscured by moderately severe emphy-