

history of exposure to beryllium-containing phosphors, a diagnosis of "beryllium sarcoid," as the condition was called at that time, was entertained. A miliary type of Boeck's sarcoid, mycotic infection and miliary tuberculosis were also considered.

Over the next year his symptoms progressed until he was unable to walk more than a few feet on the level without dyspnea, and his weight fell to 145 lb. (65.5 Kg.). On Aug. 29, 1947 it became impossible for him to carry on even the lightest sort of work. At this point the process became more stabilized, and only slight deterioration followed.

On June 6, 1939 he had fallen backward against a large crate of fluorescent lamps. Extensive lacerations of the back of the head and neck were sustained. These were sutured, and although they healed promptly, a keloid later developed with periodic inflammatory reaction and discharge of purulent material. Roentgenograms showed numerous pieces of embedded glass. Although the lacerations finally healed completely, extensive excision of the area in December 1947 and January 1948 was suggested by Dr. A. D. Nichol.⁶ The excised tissue showed typical granulomas similar to those encountered in the lungs of individuals dying from the constitutional type of disease.

On the evening of June 11, 1950, the day before he was to be admitted to the University Hospitals for ACTH therapy, he noticed substernal and infrascapular pain associated with increase of dyspnea and cough. This onset was identical with that of three previous attacks of pneumonia on June 3, 1948, July 11, 1949 and Jan. 18, 1950. Hospitalization was arranged without delay.

Physical Examination.—His temperature was 38.8 C. (101.8 F.); pulse rate, 90; respiratory rate, 30; blood pressure, 132/86. The patient was thin, cyanotic and dyspneic at rest in bed. There were coarse rales throughout both lungs, but no areas of consolidation could be made out. There was a distinct cardiac gallop (a finding noted from time to time for two years before this). The fingers showed moderate clubbing.

Pertinent Initial Laboratory Findings.—In addition to the results shown in table 1, the chest roentgenogram taken on admission showed fine mottled shadows of a granular character scattered throughout both lung fields, with streaks of increased density extending out from the lower poles of both hili. There was no frank consolidation. The total transverse diameter of the heart was within normal limits. The electrocardiogram showed extreme right axis deviation with evidence in the precordial leads of right ventricular hypertrophy.

Hospital Course and Progress Report.—On account of the acute respiratory infection, the patient was placed in an oxygen tent and given penicillin daily. Within 48 hours his temperature was normal and he felt greatly improved. Daily administration of 100 mg. of ACTH was begun on June 21, 1950. The improvement in this patient was slower than in the others. This may have been due to the fact that the disease process was further advanced and that treatment was instituted when the patient was convalescing from an acute respiratory infection. However, on the fourteenth day of treatment it was clear that a remission had begun. His appetite increased, cough and dyspnea lessened, and he felt greatly improved. Although in the roentgenogram of July 7, 1950 there was a decrease in the size and the density of many of the lung shadows, clearing did not appear to progress any further. We gradually reduced the quantity of ACTH, always making certain that the remission was maintained, until a dosage of 12.5 mg. twice daily was reached. The period of treatment extended three months, and during this time his weight rose from 128 to 150 lb. (58 to 68 Kg.). There was marked improvement in his breathing capacity (fig. 6), and his arterial blood oxygen at rest increased from 73 per cent on June 20, 1950 to 82 per cent on July 5, 1950. The hematocrit fell from 65 to 50 per cent.

During the treatment, when ACTH therapy was unavoidably discontinued for 24 hours on account of an inadequate supply of the drug, the patient's temperature rose sharply to 40.4 C. (104.7 F.) and returned to normal promptly after treatment was reinstituted. This occurred again near the end of the period of treatment, when the ACTH was at a maintenance level of 25 mg. daily. The possibility that ACTH was masking some latent infection was considered, and penicillin was given daily for three days. Subsequent to this procedure, the ACTH dosage was tapered off during the final week and discontinued without incident on Sept. 20, 1950. On

6. This case has been reported in detail by Drs. A. D. Nichol and Rafael Dominguez (Cutaneous Granuloma from Beryllium Phosphors, J. A. M. A. **140**:855-860 [July 9] 1949).