It was not difficult to prevent the accumulation of edema fluid on a diet restricted to 2 Gm. of sodium ion and 4 Gm. of potassium chloride daily. The patient had a ravenous appetite and consumed 4,000 calories each day, including 150 Gm. of protein. The ACTH dosage was gradually reduced until four weeks after the institution of therapy he was discharged from the hospital on a dosage of 5 mg. each six hours. Two weeks prior to this, on 40 mg. daily, his vital capacity had been 4 l, and the patient felt exceedingly well. On the 20 mg. dose the vital capacity fell to 3.2 l. and, although he was in a state greatly improved over that noted one month previously, still he had lost some of the improvement gained.

During the fourth to twelfth week the patient was back at his usual duties with the ACTH dose varying between 20 and 40 mg. At the twelfth week ACTH therapy was stopped. Within a few weeks there occurred a return of all the previously present signs and symptoms. A 7 lb. (3 Kg.) loss of weight occurred, marked anorexia and nausea were present, and the vital capacity dropped to 2.5 l. Oxygen administered for 10 to 15 minutes before meals helped control the nausea present after meals. Since it was apparent that shortly the patient would revert to the same condition as that which obtained before the institution of therapy, in March, it was agreed that ACTH therapy should be given again. Accordingly, starting on July 28, 1950 100 mg. of ACTH was administered daily. For the first seven days no objective or subjective improvement occurred, nor did the eosinophil count decrease. On the eighth day 100 mg. doses of ACTH of another manufacturer were begun, and a prompt clinical effect was noted.

The patient has had this medication continuously now for four and one-half months. A dosage of 50 to 60 mg. per day in four divided doses maintains his vital capacity at 3.5 to 3.8 l. His cyanosis is barely perceptible. He is able to put in a full day at his laboratory and notes dyspnea only on rapid climbing of stairs. A gradual gain of weight (and this does not represent edema fluid for the most part) has brought him to 152 lb. (69 Kg.).

Certainly, there have been no striking changes in the roentgenographic appearance of the lungs. It would appear, however, that the granulomas are slightly smaller, and fewer. An additional finding of interest is the disappearance of the clubbing of the distal phalanges of the fingers and toes.

I do not believe that this patient is "cured." ACTH is merely modifying his response to the toxic agent. However, ACTH seems to be a drug valuable in tiding the critically ill patient over a period while further work progresses on means of "tying up" the beryllium ion and removing it from the body. Work recently done in the radiobiochemical group at the Argonne National Laboratory demonstrates that ACTH does not affect distribution or excretion of $BeSO_4$ (using Be^7 as a tracer) in the mouse following intravenous and intraperitoneal injection.