March 1946, which increased appreciably until March 1947 and has remained quite stationary since. He has considerable cyanosis even at rest, clubbed fingers, loss of weight, a loud second heart sound (P_2), a prominent right outflow tract on his chest roentgenogram and a right heart strain pattern of the electrocardiogram. The erythrocyte sedimentation rate was normal and the tuberculin test negative. He has been doing sedentary work fairly comfortably and has not required oxygen. He has only moderate dry cough and dyspnea on exertion. In January 1951 he requested corticotropin (ACTH) and cortisone therapy, which was given for four weeks in a hospital, with no symptomatic or functional improvement beyond a slight decrease in the cough.

CASE 2.—J. H., a man aged 40, worked with R. S. (case 1) in shop A from August 1939 to July 1940. He then became a postal clerk in Chicago until 1948. Shortness of breath on exertion was first noted in February 1947, which increased considerably until he moved to Arizona in 1948. The chest roentgenogram showed the typical granular stippling of chronic berylliosis plus an advanced degree of emphysema and a prominent right outflow tract. In Arizona he was able to do sedentary work without oxygen until he died, last November, of a bilateral spontaneous pneumothorax. A postmortem study [1] was done and showed much bullous emphysema, significant hypertrophy of the mediastinal lymph nodes, and right ventricular hypertrophy. The microscopic sections showed the typical granulomatous lesions with giant cells and conchoidal bodies and thickened and fibrotic alveolar walls. In addition, there were numerous areas of rather massive hyaline fibrosis. Granulomas also were found in the liver and the kidney. A report is not yet available on whether beryllium was found in the root lymph nodes and lungs.

CASE 3.—R. K., a woman aged 40, never worked in shop A but visited it several times a month for short periods. Her husband, however, worked there from 1940 to 1947. His chest is clear. It happens that she is the sister of R. S. (case 1), which might be thought significant were it not for the fact that two other brothers were the owners of the company and had tremendous dust exposures from 1938 to 1948. Their chests remain clear. In 1945, subsequent to her third and last pregnancy, she first noted dyspnea on exertion, which has increased markedly since. She has a history of asthma, with sensitivity to many allergens. She uses a large tube of oxygen every 24 hours, which she takes by nasal catheter. She becomes extremely cyanotic and uncomfortable if away from oxygen more than one-half hour. Her weight formerly was 168 lb. (76 Kg.); now it is about 110 lb. (50 Kg.). The chest roentgenogram is characterized by distinct emphysema in addition to the fine granular stippling. She has a loud second heart sound (P_2), clubbed fingers, cyanosis and a prominent right outflow tract of the heart. In December 1950 she requested ACTH and cortisone therapy, which was carried out for four weeks under hospital regimen. There occurred some psychological improvement and a 10 lb. (4.5 Kg.) gain in weight in the first two weeks, which have been maintained. There was no measurable improvement in lung function, and the oxygen intake could not be lessened. The hormone therapy was discontinued early in January 1951.

CASE 4.—M. C., a woman aged 42, was the stenographer in the office of shop A from 1943 to 1949. She underwent left mastectomy for carcinoma in 1947, followed by high voltage x-ray therapy over the left side of the chest. She returned to her job in the fall of 1947. She first noted shortness of breath and cough in the summer of 1949, which have increased notably since. There is no history of allergy. A chest roentgenogram at that time showed fine granular stippling, which was diagnosed at first as lymphatic metastasis from the breast carcinoma. Her symptoms and clinical findings were exactly the same as those of the other patients, and she was beginning to ask for oxygen,[1a] which was withheld.

After a five week course of ACTH and cortisone, recently, she had a striking improvement in all her symptoms, lost her cough, was able to do much more work without tiring and becoming short of breath, lost her cyanosis and had an almost complete disappearance of the

1. Dr. James D. Barger of Phoenix, Ariz., and Dr. Fred Ewart of Mesa, Ariz., respectively, supplied the postmortem reports and information concerning this man's terminal illness.

1a. The cortisone in this study was supplied by Merck & Company, Inc.