

pretation of these tests does not hold in uranium poisoning; inulin clearance, for example, may be markedly diminished even when the glomeruli appear essentially normal histologically. This is believed to be due to increased back-diffusion of inulin through the damaged tubules. Nearly all the studies that have been reported are based on dog and rabbit experiments. (Sixty-one references.)

AUTHORS' SUMMARY [NUCLEAR SC. ABST.].

LEAD POISONING AMONG LEAD WORKERS. G. D. DIZON, V. J. LUCIANO, J. Y. NAVARRO and others, *J. Philippine M. A.* **26**:417 (Sept.) 1950.

Dizon and his associates investigated the effects of lead in workers engaged in the manufacture of batteries, washers, lead bars, and seals in four industrial establishments in Manila. The 20 lead workers included 3 battery plate casters, 5 battery plate pasters, 4 lead washer molders, 4 lead bar molders and helpers. The length of service in each particular job ranged from one to 18 years. Air samples were taken from the working environment for determination of lead content; the workers were given a physical examination; urine samples were collected for porphyrin test and determination of lead content; and blood samples were taken for hemoglobin and red cell count, determination of stippling, Kahn and Kolmer tests, and determination of blood lead values.

Air samples revealed concentrations of lead ranging from 0.23 to 2.48 mg. per cubic meter of air. These values are very much higher than the maximum allowable concentration of lead in the air, which is 0.15 mg. per cubic meter.

The results of the urine and blood tests strengthen the suspicion that the workers had early lead poisoning. Of the 20 urine samples, 12 showed porphyrin, a sign pointing to the development of lead poisoning. Six workers had lead in their urine, the concentration ranging from 0.15 to 0.60 mg. per liter of urine. These figures are much higher than the normal lead concentration of 0.03 mg. per liter. Of 17 blood samples, 15 had lowered hemoglobin contents; 11, lowered red cell counts, and 8, high lead levels. The above findings, with the complaints of the workers of weakness and anorexia, intermittent abdominal pain, metallic taste, headache, vertigo, neuralgia, etc., strengthen the suspicion that some of the lead workers had been affected by lead to a certain degree, and that there was lead hazard in the industries investigated.

BERYLLIUM SARCOMATA IN RABBITS. J. M. BARNES, F. A. DENZ AND H. A. SISSONS, *Brit. J. Cancer* **4**:212-222, 1950.

Aqueous suspensions of zinc silicate, beryllium silicate, or zinc-beryllium silicate were injected twice weekly into rabbits (six or 10 injections). Bone sarcomas developed in six of 17 rabbits surviving the injections of zinc-beryllium silicate, and in one of the 11 surviving the beryllium silicate. No tumors developed after zinc silicate. Deposits of silicates were found in the soft tissues. The tumors had frequent blood-bone and lymph node metastases.

E. K. WEISBURGER [CHEM. ABST.].

DO ALTERATIONS IN THE FUNDUS OF THE EYE ACCOMPANY BLOOD CHANGES IN BENZOL POISONING? RENARD, CAVIGNEAUX, CHARLES, FUCHS and S. TARA, *Arch. mal. profess.* **11**: 38-42 (Jan.) 1950.

Modifications of the fundus of the eye have been described several times in cases of severe anemia and leukemia. Aplastic anemia due to benzene may cause retinal hemorrhages. Most observations, however, have followed on loss of vision; without that no examination of the eye may be made. Such a case is here described where, in a severe attack of anemia due to benzene, trouble was experienced with vision. Examination of the fundus revealed the presence of lesions. The affected man had to manipulate benzene for dissolving rubber and applying the solution to metal felloes. The work was done without any precautions for controlling the fumes or any medical supervision of those employed. After some two years the man fell ill, and on