

- 947 Changes in the Blood in Experimental Trinitrotoluene Poisoning. L. Pecora
Folia med. 32, 73-85 (1949). Italian.

Rabbits subjected to a chronic poisoning with TNT developed a mild anemia with a moderate increase of the leucocytes. While the blood platelets were reduced markedly, the prothrombin time, coagulation time, and time of retraction of the clot remained unchanged. -- Chem. Absts.

- 948 Hematology in Experimental Phosphorus Poisoning Treated with Lipocaic.
L. Pecora. *Folia Med.* 32, 62-72 (1949) Italian.

Rabbits poisoned with phosphorus dissolved in oil developed a hypochromic anemia with reduction of platelets. The white cells showed a fleeting increase and a relative lymphocytosis. Treatment with lipocaic reduced these changes to an insignificant degree. Theory: the methylating action of lipocaic activates some enzyme systems blocked by the phosphorus. -- Chem. Absts.

- 949 Cardiac Stimulation in Carbon Monoxide Asphyxia. H. Schwerma, A.C. Ivy
and H. Friedman. *J. Applied Physiol.* 1, 364-368 (Nov. 1948).

We observed that the intra-cardiac injection of epinephrine and atropine in conjunction with oxygen administered by a mechanical resuscitator was effective in resuscitating 4 of 15 dogs asphyxiated with carbon monoxide when treatment was begun one minute after the last gasp and no cardiac impulse was palpable. Under the same conditions the injection of 0.85 per cent NaCl was ineffective in 15 dogs, although it did induce a transitory cardiac activity. In view of these observations it is probable that this treatment is worthy of trial as a last resort in human cases of cardiac arrest following carbon monoxide asphyxia. -- Authors' Summary

- 950 The Metabolism of Plutonium in Rats Following Intramuscular Injection.
K.G. Scott, Dorothy J. Axelrod, H. Fisher, J.F. Crowley and J.G. Hamilton.
J. Biol. Chem. 176, 283-293 (Oct. 1948).

Plutonium obtained from the Clinton Pile was prepared in the three valence states: +3, +4, and +6. Each preparation was diluted with isotonic saline to a concentration of 15 gamma of plutonium per cc. at pH 2.5. The plutonium solutions were administered to rats orally and by intramuscular injection in the left leg. The animals were sacrificed at 4, 16, 64 and 256 days. At autopsy, examination showed that plutonium in each of its valence states was not absorbed except in trace quantities from the gastrointestinal tract. It is only partially and slowly absorbed from the injection site and is deposited mainly in the liver, kidney, spleen, and particularly in the bone. After the longer intervals, the greatest degree of absorption was in the +6 valence state and the least in the +4 state. The distribution and excretion was similar in all the valence states, which suggests that plutonium is converted in the body to only one of the valence states. The chief channel of elimination was the digestive tract, but the rate of excretion was very slow. It is suggested that the highly selective localization on the bone surface explains the high toxicity of plutonium compared with equivalent quantities of radium. --Condensed from Bull. Hyg.