

- 78 Experimental Intoxication with Selenium. C.A. Vesce.  
Folia Med. 31, p. 415 (1948) Italian.

The halides, oxides and acids of selenium are particularly dangerous to man, either by inhalation of dust and vapors or by cutaneous absorption. In industrial cases poisoning is generally acute, whereas in endemic areas the effects are gradual. Irritation of the skin and mucosae, loss of the sense of smell, and irritation of the respiratory and alimentary tract have frequently been observed. Physical injury is generalized. Degenerative changes are recorded in the liver and kidney, and in the reticulo-endothelial system of the spleen hypertrophic changes have been observed. Experiments on guinea pigs and dogs showed similar changes and confirmed the results of an earlier experimenter.

-- Condensed from Brit. J. Ind. Med.

- 79 Studies in Detoxication. 21. The Fates of Quinol and Resorcinol in the Rabbit in relation to the Metabolism of Benzene. G.A. Garton and R.T. Williams. Biochem. J. 44, 234-238 (1949).

This study was undertaken to elucidate certain aspects of the metabolism of benzene and phenol. There is little exact information concerning the fate of these two phenols in the body. Quinol is of importance in industry as a photographic chemical and as a food preservative. Quinol and resorcinol are excreted almost entirely conjugated; but appreciable amounts of the latter are excreted in the free state. Quinol is excreted almost entirely as monoglucuronide (43 per cent) and monosulphate (30 per cent), only traces are in the free state. Resorcinol is excreted as monoglucuronide (52 per cent), monosulphate (13.5 per cent) and in the free state (11.4 per cent). Neither quinol nor resorcinol is oxidized in vivo to trihydric phenols or other substances. The results are discussed in relation to the metabolism of benzene, phenol and catechol.

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- 80 Studies in Detoxication. 19. The Metabolism of Benzene. 1. (a) The Determination of Phenol in Urine with 2:6-Dichloroquinone-chloroimide. (b) The Excretion of Phenol, Glucuronic Acid and Etheral Sulfate by Rabbits receiving Benzene and Phenol. (c) Observations on the Determination of Catechol, Quinol, and Muconic Acid in Urine. J.W. Porteous and R.T. Williams. Biochem. J. 44, 46-55 (1949).

This investigation was undertaken to determine the amount of phenol and other metabolites excreted by rabbits receiving benzene orally, and a quantitative study was made of the excretion of phenol, glucuronic acid and etheral sulfate. A new method for determining phenol in urine in the presence of catechol and quinol was developed; this is based on steam distillation of phenol and the use of the blue colour indicator 2:6-dichloroquinonechloroimide. The methods are described. The results show that about 21 per cent of the benzene given orally is excreted as phenols, 9.2 per cent, as phenol and 11.5 per cent, as other phenols, that is total conjugates; 79.5 per cent of the benzene is excreted as etheral sulfates, and 11.2 per cent, as glucuronides. Only traces of free phenol are excreted. Attempts to estimate catechol and quinol in the urine were not successful.

-- Bull. Hyg.