

discrete indicator of the early changes produced by silica should not be entirely ignored.

-- APCA Absts.

- 373 Changes in Activities of Respiratory Enzymes in Lungs of Guinea Pigs Exposed to Silica Dust. II. Comparison of the Effects of Quartz Dust and Lampblack on the Succinate Oxidase System. Maria G. Breyer, T.A. Kilroe-Smith, and H. Prinsloo. Brit. J. Ind. Med. 21, 32-34 (Jan. 1964).

Kilroe-Smith and Breyer (Proc. Pneumoconiosis Conference, Johannesburg, 1959, Edited by A. J. Orenstein, P. 461, Churchill, London; Brit. J. Ind. Med. 20, 243 (1963)) reported that in the early stages of silicosis in guinea pigs exposed to the inhalation of quartz dust, before the formation of collagen, there were increases in the specific activities of the complete succinate oxidase system and succinate dehydrogenase. The effects on these enzymes of quartz dust have now been compared with the effects of the fibrogenically "inert" lampblack. Lampblack causes a slight increase in the specific activities of these enzymes but the effects are small compared to those caused by quartz. Lampblack also causes a much smaller increase in lung weight than quartz, thus the enzyme increases are roughly parallel to the rise in lung weight. It appears that the effects observed on the enzymes are part of the general pattern associated with the early stages of the development of silicosis.

-- Authors' abst.

- 374 Changes in Activities of Respiratory Enzymes in Lungs of Guinea Pigs Exposed to Silica Dust. III. Progressive Effect on the Succinate Oxidase System of Dust Contained in the Lung after Cessation of Dust Inhalation. T.A. Kilroe-Smith, Maria G. Breyer, and H. Prinsloo. Brit. J. Ind. Med. 21, 35-37 (Jan. 1964).

Previous studies have shown the relation between enzymatic activities in the succinate oxidase system including succinate dehydrogenase, and the early changes in the lungs of guinea pigs exposed to the inhalation of quartz dust. The authors have now investigated whether the increase of enzyme activity depends on maintaining the dust inhalation or not. Animals exposed to the inhalation of quartz dust for a short period of 28 days, sufficient to produce only small changes in the specific activities of the enzymes, and then removed from the dusty atmosphere for a further period of 113 days showed increases of the same order as animals which remained in the dusty atmosphere for a period of 133 days and were then taken out of this atmosphere for 8 days. These increases of enzymatic specific activities are paralleled by increases in lung weight. Hence, in this respect also, the increases in activity of the enzymes follow the same pattern as the fibrogenesis.

-- Authors' abst.

- 375 Pulmonary Asbestosis. V.D. Redaksie, S. African Med. J. 37, 629-630 (June 15, 1963).

In factories the asbestosis hazard is still high despite improved hygienic conditions. The incidence is 44.5% in workers with 20 or more years of exposure and 28% in those with 10-15 years. In Canada, where almost three-fourths of the world's production of asbestos is mined, the miners would appear to suffer little asbestosis and show no significantly increased incidence of cancer of the lung. But in South Africa the miners, and even those living in the vicinity of the mines, have developed both asbestosis and pleural mesotheliomas. The author mentions the study in Capetown of Thomson and co-workers in what would appear to be the first investigation into the extent to which urban dwellers are exposed to the inhalation of asbestos fibers. That study would indicate that asbestos fibers are now an urban hazard. They did not find that it was a significant hazard as of now, but were more concerned with what might happen in the future. The current author comments further, noting that the world production of asbestos is increasing at a staggering rate, and is now 8 times it was 35 years ago. Asbestos-containing products are ubiquitous especially in urban areas. The facts that asbestos fibers are virtually indestructible, and that it is now accumulating on the surface of the earth, mainly in cities, at the rate of 2,400,000 long tons/year are reasons why these fibers may become progressively more dangerous to man. Motor vehicles discharge asbestos dust from brake drums, clutches, silencers, and under-body coatings; modern buildings may

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