
CURRENT SCIENCE—50 YEARS AGO



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p. 179

RESEARCH NOTES.**Silicosis.**

SILICOSIS is mainly a lung disease counting a high toll among the gold miners, sand blasters and quarry-men. Silica enters the lungs in large amounts as fine dust particles causing there the development of fibrotic nodules extending, in course of time from the midline to the periphery, inducing in men a predisposition to tuberculosis. A review of the theories on silicosis along with the role of silica in the system is presented by Dr. King (*Canadian Chem. and Metallurgy*, 17, 146, 1933). According to Hefferman, silica gets embedded as the hydrosol in the phagocytes

which become consequently vacuolated and die, the process spreading from cell to cell. The mechanism of this dehydration is not adequately studied. Policard considers a mineral impregnation to take place resulting in a sort of mummification of the protoplasm. According to King the silica content of the urine is influenced by the nature of the diet being larger when animals are fed with oats, cabbages, etc., and smaller on a diet of white bread and tomato juice. Silica is present as an invariable constituent of the protoplasm in the white and yolk of the eggs of birds, and other embryonic mammals. Direct administration of silica as finely powdered quartz into the stomach results in an enhanced output of this material in the urine. This value is still more abnormal when it is employed as neutralised sodium silicate. Silicic acid in saline, in dilute solutions, when given intravenous continuously for several hours, produces very high values in the urine. When this is, however, by a fine suspension of particulate silica, much of this constituent is not detected in urine, but the urine becomes bloody resulting in anuria followed by death. The kidney had, however, a normal silica content while the spleen had a figure far above the normal. Organic derivatives of silicic acid affected the composition of the blood and urine without evil effects, suggesting a high tolerance of silica in this form. The author finally concludes that the increased output of silica is not apparently through the kidneys.

ANNOUNCEMENT

**INDIAN SOCIETY OF TOBACCO SCIENCE, CENTRAL
TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY**

An International Symposium on Tobacco will be held during January/February, 1984 at Rajahmundry, Andhra Pradesh.

The theme of the Symposium will be **INDIAN TOBACCO PRESENT STATUS AND FUTURE PROSPECTS**. The topics include: (1) World Tobacco Production—India's Position (covering all disciplines involved in the production of tobacco), (2) Post harvest techno-

logy adopted in different countries (covering curing, redrying, threshing, cigarette manufactures, etc), (3) Marketing and current problems of the trade. The duration of the Symposium will be 4 days. Papers for presentation at the Symposium should be sent to the Secretary, Indian Society of Tobacco Science, c/o Central Tobacco Research Institute, Rajahmundry 533 106.