886 Cancer of the Lungs and Other Diseases After Exposure to Asbestos Dust. K. F. W. Hinson. Brit. J. Diseases Chest 59, 121-129 (July, 1965).

That exposure to the fibers of asbestos may cause a disabling and fatal fibrosis of the lungs h been recognized for many years. That patients with an established fibrosis (asbestosis) have high incidence of bronchial carcinoma is also known. During the last few years there has be an accumulation of evidence to suggest that certain pleural or peritoneal tumors may be asso with a slight, and therefore possibly unrecognized, exposure to these minerals. The world production of asbestos has been increasing rapidly since 1959 and its industrial uses are bec more varied. Three varieties of asbestos are must often used industrially: chrysotile (white asbestos) crocidolite (blue asbestos), and amosite. In Great Britain, exposure to asbestos d might be to any or all three of the above kinds of asbestos; on the North American Continent would probably be to chrysotile because of the huge native deposits found in Canada. The autl discusses briefly the pathogenesis of asbestos, but dwells much more on the possible relation of asbestos exposure and pleural tumors and tumors of the peritoneum. He also reviews the literature concerning the probable association between asbestosis and carcinoma of the lungs. Mentioned are the findings of J.G. Thomson and his co-workers (Industrial Hygiene Digest, Abst. 663, July 1963) of the high incidence (26.4%) of asbestos bodies found in the lung fluid o 500 consecutive autopsy subjects in South Africa. One of the authors of the paper on those fin ings is said to consider that the incidence in Miami, Florida, would be even higher.

-- APCA Absts

887 Asbestos Related Disease. H. L. Hardy. Am. J. Med. Sci. 250, 381-389 (Oct. 1965).

Four cases of asbestos related disease have been briefly described. Together with past and presently accumulating evidence, epidemiologic and experimental, these cases illustrate the potential hazard posed by asbestos exposure to both worker and neighbor. The purpose of this report is to interest clinicians in the harmful biologic effects of asbestos already documented. Evidence is impressive that asbestos exposure, often delayed in effect, will in the future be responsible for an important amount of pulmonary disease, especially chest tumors. In additi new evidence points to asbestos exposure as being significantly associated with abdominal tum as well. -- APCA Absts.

888 Chemical Studies of Asbestos. J.S. Harington. Ann. N.Y. Acad. Sci. 132, 31-47 (Dec. 31, 1965

Further chemical studies of the three main types of asbestos, crocidolite, amosite, and chrys have been made. The origin of the primary oils associated with crocidolite and amosite has b discussed. By suitable methods 0.32% of extractable material can be removed from crocidoli and 0.28% from amosite. A sample of commercial amosite known to be carcinogenic yielded 0.76% of extractable material. Chemical investigations have been made of the oils from croci and amosite by various techniques. Low levels of polycyclic aromatic hydrocarbons were dete In addition to the primary oils, asbestos may contain secondary oils derived from contaminati or from the intentional application of oil during processing in industry. Up to 80% of the jute o in the jute bags used for storing asbestos may be absorbed by the asbestos fiber. This could explain why chrysotile, which apparently has no primary oils, may contain, after milling and other industrial treatment, yields of from 0.1 to 0.4%. Insulation materials also contain signi amounts of extractable material. Finally, studies have been made to assess wherever possibl the part which metals and metal complexes may play in the carcinogenic action. --APCA Absts

889 Some Observations of the Dust Content and Composition in Lungs With Asbestosis, Made Durin Work on Coal Miner's Pneumoconiosis. G. Nagelschmidt. Ann. N.Y. Acad. Sci. 132, 64-76 (Dec. 31, 1965).

In the conclusion of this paper it is said that the most interesting result of this study of lung tissue from asbestosis sufferers, was that in over half the lung tissue samples from Great Bri and South Africa practically no asbestos at all was found irrespective of the grade of fibrosis. It is unlikely that this was due to faulty technique although further study of the technique of recovery of asbestos, especially of chrysotile, from lungs is undoubtedly required. It is likely that this effect—the disappearance of asbestos from the lungs—is real and needs to be explaine The most likely explanation is that asbestos does get dissolved in the lungs. The process of dis solution is likely to start with a removal of the cations, magnesium, sodium, iron, and aluminu which would leave a skeleton of hydrated silica or polysilicic acid. On physiochemical and structural reasoning one would expect chrysotile to be most easily attacked, crocidolite to be intermediate, and amosite to be the most resistant form. The finding of amosite only in some of the lung residues would be in agreement with such reasoning. The most prevalent type of fibrosis seen in asbestos is a diffuse interstitial fibrosis, in contrast to focal or nodular lesion