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Letters

Smoking and the Coronary Arteries

To the Editor:—Dr. Seltzer's thoughtful and well-documented review of "Smoking and Coronary Heart Disease" (203:193, 1968) makes no reference to personality factors. Perhaps there are no research data about personality differences of the cigarette smoker in contrast to the pipe or cigar smoker, but popular attitudes generally suggest that the pipe or cigar smoker is more phlegmatic and less likely to suffer from tension states. A striking difference in the incidence of coronary disease is found between the two groups. Apparently the Surgeon General's Advisory Committee on Smoking and Health (quoted by Dr. Seltzer) in its list of predisposing factors mentioned only "occupations involving—stress" and ignored individual personality factors basic to psychomatic disturbances, which may predispose to coronary heart disease.

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Asbestos and Mesothelioma

To the Editor:—A recent letter (203:1142, 1968) states that the problem of mesothelioma formation is "not one that involves the whole asbestos industry, but only users of crocidolite, and this mineral represents a relatively small proportion of total consumption. It has been shown[1] that mesothelioma occurs in workers exposed to chrysotile extensively mined in Canada. We have seen mesothelioma formation in workers weaving brake lining, which is made from chrysotile. Exposure was three years as a young adult, and death was caused by a peritoneal mesothelioma at 43. Another case was a 50-year-old man who worked in a Canadian asbestos mine five years and who died of pleural mesothelioma 15 years after the first exposure. Analysis of tissue by x-ray diffraction indicated that chrysotile was the only form of asbestos present. Wagner and Skidmore[2] induced mesotheliomas in the pleura of rats that inhaled chrysotile, crocidolite, amosite, and silica. Smith (personal communication) used chrysotile from Arizona prepared by the Badollet and Gantt method to produce mesotheliomas in hamsters.

We obtained similar results with pure chrysotile in mice.[3] These findings indicate that asbestos in its various forms can cause mesothelioma in both animals and man. The letter also states Wagner's[4] findings that the "time lag between last exposure and tumor formation was always long, averaging 40 to 50 years." However, Kleinfeld[5] et al reported the average years from onset of exposure to death was 29.5 years with a range of 15 to 40 years. Our patient, a chrysotile worker, died 23 years after the first three-year exposure. Another patient we have seen died of mesothelioma after 15 years of continuous exposure. We have also seen a young man who died of acute pulmonary edema after a short period of work which entailed blowing asbestos insulating material into house walls without wearing a mask.

We think that inhalation of asbestos fibers in any of its various forms—crocidolite, chrysotile, amosite, or tremolite—carries a certain risk and should be avoided.

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2. Wagner, J. C., and Skidmore, J.W.: Asbestos Dust Deposition and Retention in Rats, *Ann NY Acad Sci* 132:77-86, 1965.
3. Jagatic, J., et al: Tissue Response to Intraperitoneal Asbestos With Preliminary Report of Acute Toxicity of Asbestos in Mice, *Environ Res* to be published.
4. Wagner, J.C.: *Proceedings of the Pneumoconioses Conference, Johannesburg*, A. J. Arenstein (ed.) London: J. & A. Churchill, Ltd., 1959.
5. Kleinfeld, M.; Messite, J.; and Kooijman, O.: Mortality Experience in a Group of Asbestos Workers, *Arch Environ Health* 15:117-120 (Aug) 1967.

Intrauterine Rubella Transmission

To the Editor:—The recent articles by E. B. Buynak et al (204:195, 1968) and others[1,2] demonstrating the feasibility of attenuating rubella virus in a manner acceptable for vaccine use provides great expectation that this disease will soon be controlled. Unfortunately, during the time required to produce sufficient immunity in the population, many women and their physicians will be faced with the problem of rubella occurring in the first trimester of pregnancy. Therapeutic abortion is the only means presently available to prevent the birth of abnormal infants, and this is not legally condoned in most states.

One of the major problems in establishing laws regarding abortion in instances where the infant may be born abnormal is determining the risk of abnormality. A number of studies have been reported in which the risk of congenital abnormalities of infants born to women with clinical rubella in the first trimester varies considerably, largely depending on whether the study was conducted during epidemic or nonepidemic years. Since etiologic agents other than rubella can produce illnesses resembling rubella, it is likely that the risk figures reported in the past for congenital rubella are low. Current reports emphasize that the etiologic role of in utero rubella infections in cataracts (203:632, 1968) and deafness[3] is greater than previously recognized. In a study described recently in THE JOURNAL (203:627, 1968), we have attempted to establish the risk of fetal infection by the use of new laboratory procedures. Twelve women with clinical rubella in the first trimester of pregnancy were studied and were proven by laboratory means to have been infected with the virus. Therapeutic abortion was performed in ten instances, and nine of the ten fetuses were found to be infected with the virus. Two women elected not to have their pregnancies interrupted. Both of these women delivered infants which appeared normal at birth. Since the time the paper was written, six months have elapsed, and *during this interval both infants have developed stigmata of intrauterine rubella infection.* In addition, another woman who experienced rubella in the first trimester has come under our observation; upon termination of the pregnancy, the fetus from this woman was infected with the virus. Thus, in laboratory-proven maternal rubella, the incidence of fetal infection exceeds 92% (12 of 13 cases studied), and malformations occur in a high percent of the fetuses infected in the first trimester.

Although abortion for rubella is not legal in most states, it is quite obvious that it is being performed widely. Siegel et al[4] in a seven year prospective study of maternal rubella in New York City reported 331 therapeutic abortions in 763