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Editorial

Asbestosis and Neoplasia

In at least one fourth of the adults who die in urban areas in the United States and other industrialized countries asbestos bodies are found in the lungs [1–6]. This observation has led to the recognition of asbesto-related disease as a potential serious modern urban hazard [7–9].

Indeed, Thomson [4] has predicted that asbestos-induced neoplasms will rival cigarette-induced lung cancer in the next several decades. This prediction is based upon five observations and one assumption. The known data may be summarized as follows: (1) Asbestos inhaled under industrial conditions will produce a serious pneumoconiosis (pulmonary asbestosis) [10] even with relatively light exposure [11]. (2) Under similar conditions of heavy [12] or light [13] industrial exposure, workmen die of neoplasms more frequently than expected. (3) Widespread contamination of the environment [14,15] may occur both from industrial sources (such as asbestos-containing dusts from construction sites) and from disintegration or use of asbestos products (such as asbestos-containing floor tiles and brake linings [16]. (4) Such environmental contamination may result in widespread inhalation and retention of small numbers of the mineral fibers [1–6]. (5) Under certain conditions (for example, residence within a half-mile of an asbestos factory or in the household of an asbestos worker) environmental exposure has been shown to produce serious disease [17–20]. The prediction that widespread asbestos contamination of city air will be associated with widespread neoplasia, however, is still an assumption, an extrapolation from the observed data since we do not know at this time whether or not the small amounts inhaled as the result of asbestos air pollution have an effect comparable to the much larger amounts inhaled in industrial or intimate environmental circumstances. The question will not be resolved for some time because of the long latent period between initial contact and the appearance of clinical disease. Although there are variations based upon individual idiosyncrasy, intimacy, duration and continuity of exposure, and perhaps also upon such factors as the variety of asbestos used (chrysotile, amosite, crocidolite, anthophylite, tremolite) and the presence of other concomitant dusts, by and large it can be said that disease caused by asbestos is rarely manifested in less than ten to twenty years from onset of exposure.

PULMONARY ASBESTOSIS

The case report which gave the disease its name [21] was of a woman asbestos textile operator who had begun this work twenty years before. Alerted by this and similar cases, a survey of British factories was undertaken; evidence of asbestosis was found to be [illegible], but only in those whose occupational exposure to asbestos had begun many years before [illegible]. Similar experiences were soon recorded in the United States [22]. The counterpart of this asbestosis was almost never observed, except perhaps under the most unusual circumstances [23].

The situation still obtains. In a recent study

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