

## L E T T E R E   I N   R E D A Z I O N E

**Familial mesothelioma: an understatement?**

Sir,

The development of malignant mesothelioma is generally the consequence of a previous exposure to asbestos. In some large mesothelioma series, nearly 100% of the cases were attributable to asbestos on the basis of the occupational data, coupled with the evaluation of asbestos exposure markers (pleural plaques, lung asbestos bodies) (4). A small percentage of subjects exposed to asbestos develop mesothelioma. This fact has been interpreted as indicating that asbestos exposure is a necessary, but not a sufficient condition (3,7). In the genesis of asbestos-related mesothelioma, the role of other factors (co-factors) is needed. These co-factors remain to be identified.

Various data suggest that genetic susceptibility is probable. Familial mesothelioma affecting blood relatives have been observed in some large mesothelioma series in Italy (1-2,5). In a recent study, Ascoli et al. (1) found a 2.5% prevalence of blood-related cases. This value is somewhat higher than that previously observed in various regions of Italy (1), and closer to the prevalence seen in the Trieste-Monfalcone area, Italy (5). In a study conducted in the Wittenoom area, Western Australia, familial aggregation of mesothelioma cases was higher than that predictable on the basis of differences in asbestos exposure (6).

The low prevalence of blood-related familial cases in mesothelioma series may lead to state that genetic susceptibility is a scarcely influent factor in mesothelioma epidemiology (8). Such a statement is misleading. Two conditions are required in the mesothelioma genesis: asbestos exposure and genetic predisposition. Familial cases occur when both these conditions co-exist. It is necessary that people affected by mesothelioma had blood relatives seriously exposed to asbestos for seeing cases of familial mesothelioma. However, we do not know how many patients with mesothelioma in some series had blood relatives exposed to asbestos. Couples of people, both of them exposed to asbestos, and not all the patients of the series, should represent the denominator in

calculating the prevalence of familial cases. If this is true, the role of genetic factors in the genesis of asbestos-related mesothelioma would be more relevant than hitherto appreciated.

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