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cancers attributable to asbestos showed radiological abnormalities, most of which were small opacities. However, the chest radiographs used in this analysis were often taken many years before death and some workers may subsequently have developed fibrosis. Our results are consistent with a hospital-based case-control study in which an excess risk of lung cancer was observed in patients with an occupational history of asbestos exposure but no pulmonary fibrosis.¹⁴

If there is an association between asbestos and lung cancer without fibrosis, it is of interest for both scientific and practical reasons. From a scientific standpoint, it may suggest that asbestos is not carcinogenic solely because it is fibrogenic, although the absence of small opacities on the chest radiograph does not exclude fibrotic change at a microscopic level. More importantly, from a practical point of view, it indicates that asbestos exposures which do not cause small opacities on the chest radiograph may nonetheless increase the risk of lung cancer, and this needs to be considered by those responsible for industrial hygiene and compensation of workers with asbestos-related lung disease.

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HIV-1 subtypes and male-to-female transmission in Thailand

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Summary

We examined the risk factors for heterosexual transmission of HIV in a case-control study of couples in Thailand. 90 HIV-positive men and their regular sex partners were enrolled at the Immune clinic, Chulalongkorn Hospital, where 92% of male index cases had HIV-1 serotype A (subtype E). Most index cases had acquired HIV through sexual intercourse. 95 couples were enrolled at 15 detoxification clinics, where 79% of them had HIV-1 serotype B (subtype B). Most men had acquired HIV through injecting drug use (IDU).

The HIV seroconcordance rate was higher in the immune clinic (69%) than in the IDU clinics (48% overall, and 27% after excluding female partners who were IDUs) ($p < 0.01$). The rate was also higher among couples in whom the male index case was infected with serotype A (subtype E) compared with serotype B (subtype B) (70% vs 52%, OR 2.1, 95% CI 1.2-4.2). When we excluded couples in whom the female was also an IDU, the difference in concordance rates was even more pronounced (70% vs 26%, OR 6.8, 95% CI 2.7-17.6). Viral factors or subjects' characteristics may have contributed to the concordance rates. In a multivariate logistic regression analysis, HIV-1 serotype A (subtype E) of male partners (adjusted OR 3.1, 95% CI 1.1-9.0) and history of IDU in female partners (adjusted OR 4.8, 95% CI 1.4-15.9) remained independently associated with HIV seroconcordance.

This study suggests that HIV-1 subtype E may be associated with higher risk of heterosexual transmission than subtype B. If so, the predominance of subtype E in Thailand may have contributed to the rapid spread of the HIV epidemic.

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