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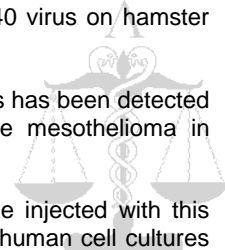
Crocidolite asbestos and SV40 are cocarcinogens in human mesothelial cells and in causing mesothelioma in hamsters

In hamsters, co-exposure to crocidolite and one strain of SV40 virus had the effect of amplifying the risk of mesothelioma from asbestos. SV40 has not been conclusively shown to be a cause of mesothelioma in humans, and in our view, is unlikely to be.

Laboratory experimentation assessed the effects of asbestos (crocidolite) and SV40 virus on hamster mesothelial cells, human mesothelial cells and in live hamsters.

Until 1978 live SV40 virus was an unintended constituent of polio vaccines. The virus has been detected in mesothelioma biopsies and some kinds of SV40 virus are thought to cause mesothelioma in hamsters.

20% of hamsters injected with crocidolite developed mesothelioma. None of those injected with this particular SV40 virus did so but 90% of those injected with both did so. Studies of human cell cultures showed similar patterns of cell toxicity.



Comment

It is not certain that hamsters are a valid model for human mesothelioma. That human cells responded to SV40 virus/crocidolite combinations adds significance to these findings.

If SV40 virus was a cause of mesothelioma and it also aggravated the effect of asbestos exposure then there would be a case for considering contributory causation. If SV40 is not carcinogenic in its own right, the blame probably lies squarely with the asbestos even if the effect of asbestos exposure is amplified by the virus.
