



BROWN UNIVERSITY Division of Biology and Medicine
DEPARTMENT OF COMMUNITY HEALTH

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The Editor
New England Journal of Medicine
10 Shattuck Street
Boston MA 02115-6094

FOR PUBLICATION

Dear Dr. Relman:

Recently the issue of medical conflict of interest in research has been much discussed in the literature and the courts.¹ We would like to discuss another type of misbehavior associated with research in occupational health. This issue is the fact that for the past several decades some researchers working for the asbestos industry have suppressed and altered research results to protect their sponsors.

We have become aware of the fact that a quote taken from a paper written by one of us (HLH) which confirmed previous reports that established a causal connection between asbestos exposure and lung cancer is being misinterpreted in the current discussion of asbestos related disease.² The quote states that, "Experience has led to the acceptance of five million particles per cubic foot of air, of small enough size to be respirable, to be the safe working concentration".³

A thorough reading of the paper indicates that this reference was meant to apply to animal studies that had been

conducted at the Saranac laboratories. Taken in context of the whole report, which included information on two cases of lung cancer, the paper indicated that the then recommended exposure limit for asbestos was either not being properly implemented or was inadequate to protect the worker against the cancer hazard from asbestos exposure. Therefore, readers of the paper were put on notice that asbestos exposed workers had a specific risk of contracting both asbestosis and lung cancer from their exposure.

Of course, none of this discussion goes to the real point. Asbestos manufacturing companies were aware of the risk to product users like insulators no later than 1930 when Merewether⁴ in his seminal paper specifically mentioned insulator work as a profession likely to result in asbestos disease. In addition, Merewether put these companies on notice of the need to utilize ventilation and to educate workers to have a "sane appreciation of the risk" of exposure to the dust.

Another article written in 1946 has also been misinterpreted in recent times.⁵ Since some of us (HLH) knew several of the now deceased authors we would like to clear the record for them as well. Here again an attempt has been made to take part of a conclusion out of context to misrepresent the facts of the paper as they were understood in 1946.² The facts that were demonstrated by this paper include 1) a specific notice was given that exposures to insulators were well above 5 million particles

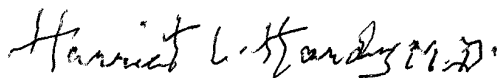
per cubic foot of dust containing asbestos (the then relevant standard) even with ventilation in place, 2) a recommendation that "safe" insulation work required ventilation and respirator use and 3) that "safe" meant that, despite the implementation of some of these controls, the insulators with ten or more years in the trade still suffered a six percent incidence of moderate and advanced asbestosis. Finally, the authors stated that the exposures, if maintained for an eight hour day, forty hours a week were not safe. Their tentative conclusion of insulating work being a "relatively safe occupation" was based on the rotation of workers. To quote them, "It seems likely to us that if the pipe coverers studied had worked steadily at any of the above operations where the amount of asbestos dust in the air was consistently high, the incidence of asbestosis among these workers would have been considerably greater".⁵

Furthermore, it is ironic that in a paper commissioned by the Asbestos Information Association, Dr. Enterline maintained that knowledge of the asbestos cancer hazard was not known until 1964.⁶ In his unpublished draft, with reference to mesothelioma, Dr. Enterline conceded that "few authors ever expressed doubt about the relationship between this rare tumor and asbestos exposure and by 1953, the issue was fairly well resolved".⁷ In his published paper Dr. Enterline, citing company consultants (Lanza and Vorwald), stated that American experts of the 30's through the mid 60's did not believe that asbestos caused cancer due to the absence of published positive animal studies. One of

us (HLH) was with Dr. Gardner at the Saranac lab in 1946 during the last months of his life. He had performed animal studies on cats and mice that indicated that asbestos was a lung carcinogen. Unfortunately, the studies had been funded under agreement with several asbestos manufacturing companies that granted them control over the publication of results. The companies sought to suppress the publication of this information that was unfavorable to them.⁸ Dr. Gardner's animal data was included in a draft of Vorwald's 1951 paper.^{9,10} Dr. Lanza directed that Vorwald strike this from the paper at the request of the controlling companies.¹¹ A second positive animal study was performed by Dr. Vorwald for the Quebec Asbestos Mining Association.¹² This remains unpublished.

The asbestos tragedy is one that need not have occurred. It is one that research workers and other companies must learn from.

Sincerely yours,



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EDITORIAL OFFICES

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June 20, 1990

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Dear Dr. Egilman:

I am sorry that your letter to the editor cannot be considered for publication in the Journal in its present form, and I am returning it herewith. We can publish only a minor fraction of the letters we receive and must limit all letters to 1 1/2 double-spaced pages (40 lines) of text. This policy is printed at the beginning of the correspondence section of each issue. If you would like your letter considered, I must ask that you submit it in the proper format. Please understand, however, that the editors have not yet seen this letter, and no decision about its publication has been made.

Thank you for your interest in the Journal.

Sincerely Yours,

Patricia M. Lamy
Correspondence

pml/pml
enc.

P.S. We have kept the set of references you sent on file pending resubmission.