



CHEMICAL MANUFACTURERS ASSOCIATION

September 23, 1988

Dear Vinyl Chloride Panel Members:

The conference call tentatively scheduled for September 29 or 30 is cancelled. A new date will be set up after checking with Panel members for maximum participation.

Meanwhile, please review the enclosed September 15 letter from Dr. Bill Gaffey that summarizes his meeting with Dr. Brian Bennett of ICI, England. The background information leading to this meeting was sent to you earlier, but also is enclosed for your ready access.

At our conference call in early October, we will discuss the EHA's interim report that was sent to you earlier and a course of action for resolving discrepancies between the EHA study and the Angiosarcoma Registry.

Sincerely,

A handwritten signature in dark ink, appearing to read "Has Shah", written in a cursive style.

Hasmukh C. Shah, Ph.D.
Manager
Vinyl Chloride Program

cc: Vinyl Chloride Research Coordinators

Monsanto

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From Hao Shah
Ref. No. VC Panel
Date 9/23/88

September 15, 1988

Dr. Hasmukh Shah
CMA
2501 M St. NW
Washington, DC 20037

Dear Has:

Dr. Bennett and I went through the Registry cases and the EHA cases, but I realized afterwards that we hadn't really come up with any specific things that could be done to resolve the remaining inconsistencies. Therefore I went through the data and rearranged the results somewhat. The net results are pretty much what Richard Doll found, but with some specific things that might be done.

The Registry includes 29 cases (all deaths) that occurred in U.S. workers up to the closing date of the EHA study, and these are potentially eligible for inclusion in that study. The EHA study lists 37 liver and biliary cancer deaths, using death certificate diagnosis, 15 of which are ASL. One of the Registry cases, No. 24, is in fact a cholangiosarcoma. It appears to be EHA Case No. 36 (listed by EHA as non-ASL) although the beginning date of exposure differs by 2 years in the two lists. I omit this case in what follows, so that we have 28 Registry cases and 36 EHA cases.

I matched the two lists using date of birth, date of first VC exposure and date of death, which were common to the two lists. I considered a Registry case and an EHA case to be the same if each of the three items agreed within a year, with one exception. There were 20 matches, as Doll says.

CMA 012350

Registry No.:	EHA No.	"A" means EHA called death an ASL
01	25	A
02	20	
03	26	A
04*	23	
05	22	A
06	27	A
07	15	A
11	08	
13	10	A
16	18	A
17	28	A
19	37	
21	35	
22	19	A
26	17	A
27	11	A
28	13	A
29	31	A
30	01	
31	12	A

*Birth and death dates matched exactly, but first exposure began in 1952 in the Registry and 1949 in EHA.

Dr. Hasmukh Shah
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The above list tells us 3 things. First, there are 8 Registry cases for which there are no apparent matches in the EHA listing. These are Registry numbers (08, 09, 10, 12, 18, 20, 23, 32). (Case 32 actually matched EHA's Case 31 but the former is the only Monsanto case while the latter is one of 13 from the same factory, so the match cannot be correct.)

Second, there are 16 EHA cases (02, 03, 04, 05, 06, 07, 09, 14, 16, 21, 24, 29, 30, 32, 33, 34) that are not in the Registry, Case 07 is ASL according to the death certificate. This agrees with Doll's figures.

Third, EHA cases (01, 08, 20, 23, 35, 37) were actually ASL deaths although the death certificate did not so state. This is true because they were in the Registry and therefore histologically confirmed by that source.

Therefore as of our present state of knowledge 20 of the 28 Registry cases were actually found by EHA, but not all of them were identified as such because the death certificates did not all mention ASL.

This leaves two questions. First, where are the remaining 8 Registry cases? Second, are there any new ASL deaths among the 16 EHA deaths that were not in the Registry? (EHA case 07, for example).

Of the Registry cases, names are missing for 4. It is possible that these could be obtained from the companies involved (Goodyear and Great American). It seems to me that Otto could search the EHA cohort to see if he could match them with cohort members.

Depending on the results we would conclude that (a) they were included but the death certificate cause was something other than ASL (b) they were included but were counted as alive or lost to follow-up or the death certificate was not found, or (c) they were not included in the original VC study either by accident or design. Of course, in the last case it could also be true that the identifying information was wrong in one or both of the two sources.

CMA 012352