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Betty Browning

Pergamon

Ann. occup. Hyg., Vol. 38, No. 4, pp. 635–638, 1994
Elsevier Science Ltd
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0003-4878/94 $7.00 + 0.00

0003–4878(94)E0032–U

MESOTHELIOMA AMONG CAR MECHANICS?*

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(*Received* 30 *November* 1993 *and in final form* 15 *February* 1994)

Paper read at the Workshop on Health Risks Associated with Chrysotile Asbestos, held in Jersey, Channel Islands, 14–17 November 1993.

No Astract.

IN 1991 and 1992 preliminary information was given on an on-going case-control study of mesothelioma, which up to that time involved 175 cases, of whom 14 were car mechanics (WOITOWITZ and RÖDELSPERGER, 1991, 1992). This study has now been finished (WOITOWITZ *et al.*, 1994) and the final results relating to car mechanics can be reported.

Of the original 14 cases four had to be rejected, since the panel of pathologists finally classified them only as "possible mesothelioma". Ultimately out of 324 cases of mesothelioma 16 were classified as motor vehicle mechanics (according to code 421 "Kraftfahrzeug-Instandsetzer"—"motor vehicle repair worker"—of the German Federal Statistical Office). They were compared with 16 mechanics among 315 hospital controls and 12 mechanics among 182 population controls (see Table 1). The hospital controls were patients who had undergone lung resection for reasons other than mesothelioma, in most instances because of lung cancer.

Evaluation of the occupational histories of cases and controls showed that one of the mesothelioma cases and one of the hospital controls worked with locomotive engines and a second case worked with trams. A third mesothelioma patient worked in automobile production where he was exclusively involved in fitting windscreens. Among the population controls who had worked with cars one had only painted cars and another had produced car spare parts.

The motor mechanics began their employment in that capacity between 1925 and 1972, the median date being 1949 for both groups of patients and 1946 for the population controls. The duration of relevant employment was longer for controls than for cases, with median values of 5, 5.5 and 4 years, respectively. Seven of the mesothelioma cases, nine of the hospital controls and three of the population controls said that they had done brake repair work. In all three groups there were some individuals who had substantial asbestos exposure in other types of employment (e.g. in a power plant or in the ship-building industry). Only four of the mesothelioma cases, two of the hospital controls and five of the population controls had no history of asbestos exposure. Three of these four mesothelioma cases, and also two of the five

*Supported by the German Federal Ministry of Science and Technology, Project No. 01 HK 076 A6.

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TABLE 1. MOTOR VEHICLE MECHANICS AMONG 324 MESOTHELIOMA CASES, 315 HOSPITAL CONTROLS AND 182 POPULATIONS CONTROLS. INFORMATION FROM OCCUPATIONAL HISTORY

Group	Total number N	Motor vehicle mechanics N	%	Beginning of employment median value and range	Duration of employment (years)	Definitively engaged in brake service* N	%	No other asbestos exposure N	%
Mesothelioma patients	324	16	4.9	1949 (1936–1972)	4 (1–8.4)	6	1.9	4	1.2
Hospital controls	315	16	5.1	1949 (1925–1962)	5 (1–43)	9	2.9	5	1.6
Population controls	182	12	6.6	1946 (1929–1958)	5.5 (0.6–35)	3	1.6	5	2.7

*This does not mean that other mechanics were not engaged in brake service.