

hospital controls and two of the five population controls, stated that they had been engaged in brake repairs.

Lung tissue analysis was available for two of the mesothelioma cases and for one of the hospital controls (RÖDELSPERGER *et al.*, 1993, see Table 2). For mesothelioma

TABLE 2. LUNG TISSUE ANALYSIS OF MESOTHELIOMA CASES AND HOSPITAL CONTROLS, ENGAGED AS MOTOR VEHICLE MECHANICS. THE ANALYTICAL SENSITIVITY IS DEFINED AS CONCENTRATION PER FIBRE

No.	Status	Analytical sensitivity	Lung dust fibre concentration $L \geq 5 \mu\text{m}$ $\times 10^3 \text{fg}^{-1}$ (dry)			Other minerals
			Chrysotile	Amphibole		
1	Case	22	0	0		0
2	Case	14	0	282		0
3	Control	25	1.630	0		76

patient No. 1 no fibres longer than $5 \mu\text{m}$ were found. Since 1972 he had worked for 8 years as a car mechanic and was engaged in brake repair work during this time. There was no suggestion of any other asbestos exposure.

For mesothelioma patient No. 2 characteristic amphibole fibres longer than $5 \mu\text{m}$ were observed. He had worked as a car mechanic for only 1 year in 1940 and had been a Luftwaffe pilot from 1941 to 1945; he had no known asbestos exposure from other employment.

Control patient No. 3 had numerous long chrysotile fibres but no amphibole fibres. He had worked as car mechanic from 1934 to 1939. From 1945 to 1950 he was a prisoner of war in Russia where he had to arc-weld steel structures and to install glass fibre insulation. Subsequently he is assumed to have had no further occupational exposure to asbestos.

CONCLUSIONS

From these results there is no evidence that car mechanics are exposed to an increased risk of mesothelioma even if they do brake repairs, but asbestos exposure in other employment is an important confounding factor, so that if there is a mesothelioma risk for car mechanics but it were small it would not be detectable. The absence of fibres in the lung tissue analysis for one of the mesothelioma cases—despite his employment for 8 years as a car mechanic, repairing brakes—does not exclude the possibility that, decades before, chrysotile fibres were active at the target cells. On the other hand, it is doubtful that the amphibole and chrysotile fibres, in the lung tissue of two other patients, can be related to their employment as car mechanics.

[For the discussion of the issues raised in this and the other allied papers see pp. 407–425.]

REFERENCES

- RÖDELSPERGER, K., WOITOWITZ, H.-J., BRÜCKEL, B., ARHELGER, R., RÖMER, W., POHLABELN, H. and JÖCKEL, K.-H. (1993) Fall-Kontroll-Studie an Mesotheliompatienten zum Gehalt anorganischer Fasern im