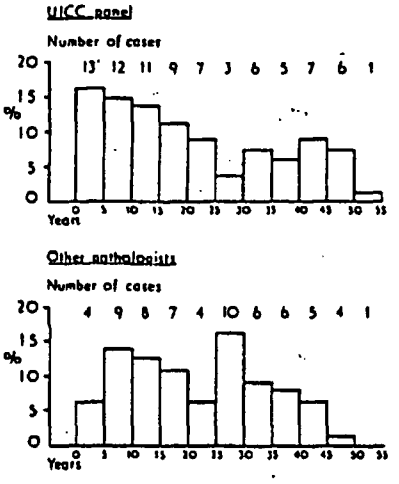


FIG. 4. Definite pleural mesothelioma: duration of occupational exposure to asbestos.

survival after first exposure in the two groups (mean age: UICC, 37·4 years; other pathologists, 38·4 years). The interval between last handling asbestos and death was under one year in about 40% cases but varied up to 52 years (one case). The duration of exposure was more widely spread, ranging from three weeks to over 50 years. Twelve per cent of cases had been exposed for under five years. The man with only three weeks' exposure died over half a century later.

Table 7 summarizes information regarding the type of asbestos, but this could be obtained in only a small proportion of subjects. Of the 50 subjects with 'definite mesotheliomas', where the types of asbestos to which they were exposed were known, 45 had been exposed to crocidolite. Of the group of 12 subjects diagnosed as 'definitely not mesothelioma' in which types of asbestos to which they had been exposed were known, eight had been exposed to crocidolite.

There is no significant difference between these two groups. In four cases of definite mesothelioma no exposure was known other than to chrysotile. A history of exposure to talc was obtained in seven subjects with definite mesotheliomas, but six of them had also been exposed to asbestos. It was not possible to identify the nature of the talc to which they had been exposed.

Other evidence of asbestos exposure

It is apparent that a history of occupational exposure to asbestos is frequently associated with the presence of asbestosis, asbestos fibre bodies, asbestos fibres or pleural plaques observed at necropsy or radiologically (Table 8). Ashcroft and Heppleston (1973) stress the importance of phase contrast microscopy and electron microscopy in searching for asbestos in tissues. The presence of pleural plaques does not always indicate asbestos exposure (Rous and Studeny, 1970). It is not possible, however, to observe a significant difference of asbestos exposure between subjects with definite pleural mesotheliomas and those subsequently categorized as definitely not pleural mesothelioma.

In four 'definite pleural mesotheliomas' corroborative evidence of asbestos exposure was found in the absence of occupational exposure histories. Of those subjected to 'hobby' or 'domestic' exposure (six cases) none showed corroborative features. Of those with 'neighbourhood' exposure (eight cases), two had asbestos bodies.

TABLE 8

CORROBORATIVE EVIDENCE OF ASBESTOS EXPOSURE[1] RELATED TO OCCUPATIONAL EXPOSURE HISTORY AND NOTIFICATIONS TO MESOTHELIOMA REGISTER (PLEURAL TUMOURS ONLY)

Occupational asbestos exposure history	*Definite pleural mesothelioma*			*Definitely not pleural mesothelioma*		
	Corroborative evidence	*No corroborative evidence*	*Not reported*	*Corroborative evidence*	*No corroborative evidence*	*Not reported*
Definite	100 (69%)	24 (16%)	22 (15%)	19 (73%)	3 (12%)	4 (15%)
Possible	8 (50%)	4 (25%)	4 (25%)	0 (—)	3 (60%)	2 (40%)
None ascertainable ..	4 (13%)	18 (56%)	10 (31%)	0 (—)	6 (33%)	12 (67%)

[1]Asbestosis, asbestos bodies, asbestos fibres or pleural plaques

Geographical di
Tables 9a and
million per yea
diagnoses in E.
The Registrar
employed for E
Dunbartonshir
Hamilton, and
no means rel
western Engla
thousands, had
2·97 cases/mill
population of
histories of occ
remainder of
population, pr
only four had
asbestos (a ra

[1]Assuming that
twice that numb
year.

GEOGRAPHICAL

Greater London
Rest of SE Engl

SE Lancashire
Merseyside con
Rest of NW Eng

Tyneside ..
Rest of N Engla

W Yorkshire co
Rest of Yorks &

N Wales
SE Wales..

E Anglia ..

Clydeside[1] ..
Rest of Scotland

SW England

E Midlands
W Midlands co
Rest of W Midl

England, Wales

[1]Standard regio
[2]Dunbartonshir
[3]One subject wh