

to adhere to all these criteria mentioned. Zielhuis et al (1975) discussed other methodological aspects of study design: it is essential that where possible the history taking should be performed by an experienced and inquisitive physician; it should not only be based upon an extensive standard list of possible sources of exposure, but it should also include a free interview, exploring unexpected unlisted possibilities of exposure. In addition the controls should be carefully matched with regard to age, sex, place of residence, time of diagnosis, and state of health (for each deceased case of mesothelioma a deceased control, etc.). An absolute underreporting of past (para-)occupational exposure may easily occur when for instance a too rigid standard questionnaire is followed or when only hospital records are screened, a relative underreporting of past asbestos exposure occurs if deceased mesothelioma cases are matched against live controls.

Hain et al (1974) reported on a case-control study from the Hamburg area: 150 autopsy cases were compared with the same number of live controls; 85 cases had occupational exposure against 35 of the controls; 20 cases had neighbourhood exposure, 1 case domestic exposure; no indication for exposure category 1, 2, 3 had been found in 44, i.e. 29% of mesothelioma cases and in 114, i.e. 76% of controls. The maximal prevalence of true environmental exposure therefore was less than 30%; however, relative underreporting of (para-)occupational, neighbourhood and possibly domestic exposure had very probably taken place, because live controls were compared with deceased mesothelioma cases. In the Dresden and Halle-Magdenburg (DDR) area Sturm (1975) performed a study in 315 mesotheliomas (288 pleura, 26 peritoneal, 1 pericardial); in 246 cases, in which an exhaustive evaluation could be performed (69 cases no history!), 67% had past direct occupational exposure, 20% indirect occupational exposure, 4% domiciliary exposure, 6% were neighbourhood cases.

Studies in Italy (Rubino et al (1972) and Switzerland (Röttner et al 1974) used non-sensitive history taking procedures which very probably led to serious underreporting; the percentages of absence of past occupational exposure, 90 and 96% respectively, are certainly much too high to be accepted as valid.

In the Netherlands Zielhuis et al (1975) could not establish evidence of definite or probable occupational exposure in 16% of 31 cases from the Rotterdam area (harbour, shipyards, heavy industry) against 71% in matched controls; the percentages were 39 and 83 respectively in 36 cases and matched controls in

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