

# Incidenza del mesotelioma maligno (1980-1999) ed esposizione ad amianto in 190 casi diagnosticati in residenti nella provincia di Brescia

P.G. BARBIERI, S. LOMBARDI, A. CANDELA, C. PEZZOTTI, I. BINDA

Servizio Prevenzione e Sicurezza degli Ambienti di Lavoro, Azienda Sanitaria Locale Provincia di Brescia

## KEY WORDS

Mesothelioma incidence; asbestos exposure; occupational risk; cancer surveillance

## SUMMARY

**«Incidence of malignant mesothelioma (1980-1999) and asbestos exposure in 190 cases diagnosed in the population of the Province of Brescia».** Several cases of malignant mesothelioma (MM) previously unknown to the Occupational Health and Safety Service were recognised in the Province of Brescia after an active surveillance program carried out during the first nineteen years of operation; a large proportion of the cases involved workers occupationally exposed to asbestos. A local Mesothelioma Register was subsequently set up in 1993 and by the end of 1999, 190 MM cases had been collected. The annual incidence ratio (standardized on the Italian population, census 1981, x100,000 person-years) was calculated in the 1980-1999 period and showed an increasing trend for location in the pleura in both sexes; in the 1996-1999 period the incidence ratio was 2.95 for males and 1.35 for females. In the same period, this trend was not observed for peritoneal location, with an incidence ratio of 0.17 and 0.37 for males and females respectively. 161 pleural MM (84.7%) and 28 peritoneal MM (14.7%) are described; histopathologic diagnosis was performed in 161 cases (84.7%). Anamneses were collected for 88% of the cases but with direct information from patients only in 65% of these in the recent period. Only 7 cases of asbestosis were diagnosed in the MM cases, whereas 31 cases of pleural abnormalities were observed but only 17 of these were observed in workers occupationally exposed to asbestos. Occupational asbestos exposure was evaluated as certain, probable or possible in 45% of total cases and in 54% of recently (1996-1999) observed cases, which were ten times more frequent in males. Exposure occurred in sectors works where asbestos was not used as raw material, such as construction, iron and steel and metal working. MM's from environmental and non-occupational exposure to asbestos were very few, 1.5% and 0.5% respectively. In 65 MM's asbestos exposure was unknown (34.2%); 50% of these concerned females; for whom the industry and jobs are discussed. The distribution of histologic types of MM was similar in asbestos exposed and non exposed cases. No association between peritoneal mesotheliomas and heavy exposure to asbestos was observed. Ten cases of MM were diagnosed in subjects under 45 years old (5.2%) with only one case occupationally exposed. 2 cases were exposed to radiation therapy (1%) and 2 cases to thoracic trauma (1%). Although in Italy MM has been included in the list of compensatable occupational diseases by law since 1994, a large number of cases occupationally exposed to asbestos are still not recognised by the National Insurance Institute (INAIL). A number of problems limiting work of the the Mesothelioma Register and its usefulness are discussed. The Lombardy Mesothelioma Register set up in January 2000 should be able to overcome the limits identified in the past.

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Corrispondenza: P.G. Barbieri, Servizio PSAL ASL Provincia di Brescia, Via Pericoli 4 - 25058 Sulzano, Brescia

Tel. 030 9887311 - fax 030 9887283 - E-mail: clarar@tin.it