

Association between asbestos exposure and pericardial and tunica vaginalis testis malignant mesothelioma: a case-control study and epidemiological remarks

Scand J Work Environ Health. 2020 Nov 1;46(6):609-617

Marinaccio A, Consonni D, Mensi C, Mirabelli D, Migliore E, Magnani C, Di Marzio D, Gennaro V, Mazzoleni G, Girardi P, Negro C, Romanelli A, Chellini E, Grappasonni I, Madeo G, Romeo E, Ascoli V, Carrozza F, Angelillo IF, Cavone D, Tumino R, Melis M, Curti S, Brandi G, Mattioli S, Iavicoli S, ReNaM Working Group

OBJECTIVES

The purposes of this study are to describe the epidemiology of pericardial and tunica vaginalis testis mesothelioma and assess the role of asbestos exposure for these rare diseases.

METHODS

Based on incident pericardial and tunica vaginalis testis mesothelioma cases collected from the Italian national mesothelioma registry (ReNaM) in the period 1993-2015, incidence rates, survival median period and prognostic factors have been evaluated. A case-control study has been performed to analyze the association with asbestos exposure (occupational and non-occupational) for these diseases.

RESULTS

Between 1993 and 2015, 58 pericardial (20 women and 38 men) and 80 tunica vaginalis testis mesothelioma cases have been registered with a mean annual standardized (world standard population as reference) incidence rates of 0.049 (per million) in men and 0.023 in women for the pericardial site, and 0.095 for tunica vaginalis testis mesothelioma. Occupational exposure to asbestos was significantly associated with the risk of the diseases [odds ratio (OR) 3.68, 95% confidence interval (CI) 1.85-7.31 and OR 3.42, 95% CI 1.93-6.04 in pericardial and tunica vaginalis testis mesothelioma, respectively]. The median survival was 2.5 months for pericardial and 33.0 months for tunica vaginalis testis mesotheliomas. Age was the main predictive factor for survival for both anatomical sites.

CONCLUSIONS

For the first time in an analytical study, asbestos exposure was associated with pericardial and tunica vaginalis testis mesothelioma risk, supporting the causal role of asbestos for all anatomical sites. The extreme rarity of the diseases, the poor survival and the prognostic role of age have been confirmed based on population and nationwide mesothelioma registry data.

FULL TEXT PER GLI UTENTI REGISTRATI ALLA RIVISTA

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7737812/>