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Meeting abstract

Lung cancer mortality in Mexico

Luz Ma Ruíz-Godoy[1], Pedro Rizo[2], Felipe Sánchez[3], Alvaro Osornio[1,4], Claudia García[1] and Abelardo Meneses García*[5]

Address: [1]Basic Research, Instituto Nacional de Cancerología, México DF, [2]Archivo Clínico, Instituto Nacional de Cancerología, México DF, [3]Dirección General de Epidemiología, México DF, [4]Programa Universitario del Medio Ambiente, UNAM, México DF and [5]Dirección Médica, Instituto Nacional de Cancerología, México DF

Email: Abelardo Meneses García* - aameneses@hotmail.com

* Corresponding author

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Background

Lung cancer (LC) is the cause of the highest cancer-related rate in the world for both sexes (1,179,000 deaths). In Mexico, the raw mortality rate for LC was 5.01 per 10^5 inhabitants in 1979. Tobacco is its most important risk factor. The purpose of this study was to analyze lung cancer mortality in Mexico, in each of the Mexican Republic States, from 1998 to 2004.

Materials and methods

Data was obtained from the National Institute of Statistics, Geography and Informatics (INEGI) for deaths by LC from 1998–2004. The annual mortality mean rate (AMMR) was established for each of the 32 Mexican Republic States. The "world standard population" was used. AMMR was standardized by age (SRA) through direct method, and the standard error was calculated by Poisson approximation with a 95% reliability interval. Excess of mortality risk was calculated from standardized mortality ratios (SMR) of SRA for each state, using the national rate as reference, with 95% and 99% reliability intervals. SPSS, version 10.0 for Windows, was used.

Results

From 1998 to 2004, 397,400 deaths by malign tumors were registered, out of which 45,578 (11.5%) were due to LC.

Conclusion

The highest mortality rates by LC were seen in the north of Mexico for both sexes, restricted to women in the central area. Although tobacco is the main risk factor for LC, other factors, such as environmental pollution or exposure to toxic substances, may be associated with this cancer. The cities with the highest rate of air pollution are found in states in northern and central Mexico (according to monitoring from 1994 to 2001). According to the Histopathologic Register of Malign Tumors (HRMT), years potentially lost by LC for both sexes were 258,550 for men and 133,315 for women, or a total of 391,865. Studies focused on characterizing and measuring polluting agents will be the first step to establish any contribution to lung cancer. Source: INEGI, 1998–2004 * Age Ratio Standard.