

POSTER PRESENTATION

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Breast cancer and environmental factors

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Breast cancer incidence is higher in urban areas and industrialized countries, rather than in less developed ones [1]. The etiology is probably multifactorial and lifestyle and environmental factors account for 73% of cases [2]. The present study analyzes the eventual relationship between environmental pollutants exposure and population density and the risk of developing breast cancer. It concerns 544 cytological exams during 2008 in our Hospital sorted by age, geographic area, anatomic location, and the cytological results. The environmental pollutants emission reported in 2007 (by the Portuguese Environment Agency) in the Central Region of Portugal was adjusted to the population density of each municipality and statistically analyzed. The prevalence of breast cancer in the municipalities with lower population density and lower allocation of pollutants is 24.3% vs 13.8% in areas of higher population density. Three clusters of incidence of breast cancer were identified, one at the coast (Aveiro-Leiria) and two central areas, on the north and centre of Coimbra. The prevalence of breast cancer depends on the level of emission of atmospheric pollutants. We conclude for the influence of environmental risk factors in breast cancer incidence, despite the wideness of the results, which implies that further and more consistent studies have to be done.

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