

IS THE CITY AIR POLLUTION A RISK FACTOR FOR THE MEMORY

D. Kountouris

Neurological Diagnostic Center of Athens, Athens, Greece

Background: Aim of this study is to examine the possible burdens of the urban air pollution in relation to the countryside and the memory.

Methods: 156 people of a mean age 55-65 years old were separated in 2 teams of 78 of same sex and age, coming from urban and countryside background. To all the patients a new research was examined for the Mild Cognitive Impairment (MCI). This term has been proposed to describe subjects who have only memory deficits without global cognitive and functional impairment. At the same time they were neurophysiologically examined with electroencephalography (EEG) and the Mini Mental State Examination (MMSE). All the results were recorded and compared between them.

Results: The results of the neurophysiological tests as well as the memory tests for the two groups were compared. A significant difference, concerning the MCI and MMSE results was noted against the urban patients. Significant differences were also noted on the disorders of the EEG background activity on the same patients. A characteristic was that as at a much later stage the age was, the clearer these disorders were in both examinations. Furthermore it is observed that people belonging to group of urban environment with chronic habits of smoking presented even more serious damage compared to those who lived in a countryside environment.

Conclusion: The urban environment causes memory and brain activity disorders. These disorders are increased as the age goes on.