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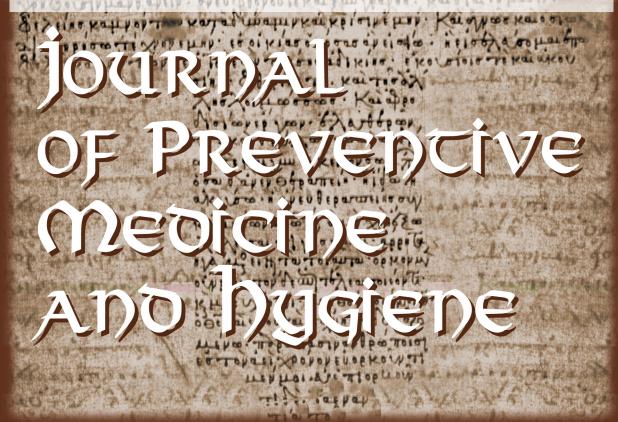
Supplemento 2

Atti

2° edizione

Giornate della ricerca scientifica e delle esperienze professionali dei giovani

Società Italiana di Igiene, Medicina Preventiva e Sanità Pubblica (SItl)
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2° EDIZIONE "GIORNATE DELLA RICERCA SCIENTIFICA E DELLE ESPERIENZE PROFESSIONALI DEI GIOVANI"



95% CI: 1.06-1.15). In stratified analyses, we found similar risk for outdoor and indoor LAN exposure, but higher risk for premenopausal women, normal weighted and with positive estrogen receptor status. The dose-response meta-analysis, which could be performed only in studies investigating outdoor LAN exposure, showed a linear relation up to 40 nW/cm²/sr after which a plateau seemed to be reached, especially in premenopausal women.

CONCLUSIONS

Overall, in this first dose-response meta-analysis of the relation between LAN exposure and breast cancer risk, we found a positive association, particularly in selected subgroups.

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Atrial fibrillation and other risk factors for early-onset dementia: an Italian case-control study

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Introduction

Early-onset dementia (EOD) is defined by onset of dementia symptoms before the age of 65, regardless of the underlying dementia syndrome. EOD has a significant impact on patients and their families, particularly when including young children [1], as well as on patient employment and income [2]. The most frequent EOD diagnosis is Alzheimer's dementia, followed by frontotemporal dementia and vascular dementia [3]. Despite genetic susceptibility may play an etiologic role for EOD, known gene mutations may explain only less than 10%. of EOD cases. Therefore, other factors as environmental and occupational exposures, as well as lifestyle and dietary habits might be involved [4-7]. In the present study, we aimed at investigating the role of cardiovascular risk factors in EOD etiology in an Italian population.

MATERIALS AND METHODS

We carried out a case-control study in Modena, Northern Italy. We recruited EOD cases referred to the Cognitive Neurology Centers at the Modena Policlinico-University Hospital and Carpi Hospital, providing specialized EOD care for the whole territory of the province, in the period October 2016-October 2019. Inclusion criteria were: dementia diagnosis with symptom onset before the age of 65, dementia as the principal cause of disability, and residence in the province of Modena. Subjects with coexisting diagnoses of pervasive developmental disorders or major psychiatric disorders, or cognitive impairment in the context of another neurological disorders (e.g., multiple sclerosis or cerebrovascular disease with severe motor disability) were excluded. As a referent population, we recruited the caregivers of dementia patients irrespective of age at onset. Each subject received a questionnaire tailored to record anamnestic and lifestyle factors potentially related to dementia onset [8,9]. In particular, we

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assessed medical history related to other clinical conditions in order to investigate their association with EOD. We used crude and adjusted multivariate unconditional logistic regression models to estimate odds ratio (OR) and 95% confidence intervals (CI) of EOD associated with the investigated factors. We included sex, age (years) and educational attainment (years of education) in the multivariable model as potential confounders and effect modifiers.

RESILTS

The final study sample encompassed 112 participants, including 58 (male/female: 25/33) EOD patients and 54 (male/ female: 23/31) controls. Mean age at EOD diagnosis was 59 (standard deviation: 5) years with clinical diagnosis of Alzheimer's dementia (55%), frontotemporal dementia spectrum (33%), and vascular dementia (8%), and Levy body dementia (2%), and cerebral amyloid angiopathy (2%). Cases and controls achieved a high school level in 32.8 and 38.9%, respectively, while they reached college or more in 5.2 and 24.4%, respectively. Dementia risk according to medical history of common cardiovascular risk factors showed a decreased risk for diagnosis of hypertension (OR = 0.6, 95% CI: 0.3-1.4), but an increased risk for dyslipidemia (OR = 1.4, 95% CI: 0.6-3.3) and diabetes (OR = 2.8, 95% CI: 0.7-11.2). Conversely, substantial null association was found with history of carotid artery plaques and cardiac valvular disorders. When assessing history of previous major cardiovascular diseases, we found no association with myocardial infarction (no cases reported a positive history), but a positive one with cerebrovascular disease (OR 4.0, 95% CI: 0.4-39.1) and with atrial fibrillation (OR = 2.1, 95% CI: 0.4-12.1).

Conclusions

In this study, we investigated the relation between known cardiovascular risk factors medical history of cardiovascular disease and EOD risk. We found some evidence of a possible relation between dyslipidemia and diabetes, while among major cardiovascular diseases, only cerebrovascular diseases and atrial fibrillation suggested a positive association.

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