

SP1-92 SERUM α -LINOLENIC ACID AND DISABLING DEMENTIA AMONG JAPANESE: THE CIRCULATORY RISK IN COMMUNITIES STUDY (CIRCS)

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Background Information on the impact of fatty acid composition on dementia has not yet been elucidated.

Methods We performed a nested case-control study based on a cohort of approximately 12 000 Japanese people from two communities in the CIRCS, aged 45–85 at baseline (1984–1994). Fatty acid compositions were measured for 350 dementia cases and 700 controls (age, sex, community and baseline-year matched). The subjects were followed-up from 1999 through 2008, and incident disabling dementia was defined as dependent individuals who had moderate to severe dementia-related behavioural disturbance and/or cognitive impairment. This criterion was previously validated with 5-cog test (specificity 90%, positive predictive value 71%). The conditional OR and 95% CI for disabling dementia was calculated according to one SD increment of each fatty acid with adjustment for body mass index, smoking status, alcohol consumption, systolic blood pressure, antihypertensive medication use, serum total cholesterol and diabetes.

Results Serum α -linolenic acids were inversely associated with disabling dementia (OR=0.82 [0.70–0.95] for 1-SD increment). No associations were observed for other fatty acids: OR=1.07 [0.91–1.26] for saturated fatty acids, 0.99 [0.84–1.17] for mono-unsaturated fatty acids, 0.98 [0.83–1.15] for n–6 polyunsaturated fatty acids, 1.00 [0.87–1.16] for eicosapentaenoic acid, and 1.03 [0.87–1.22] for docosahexaenoic acid.

Conclusions We found a significant inverse association between serum α -linolenic acid and incident disabling dementia.

SP1-93 AN EPIDEMIOLOGICAL STUDY TO MEASURE THE PREVALENCE OF DIABETES IN THE URBAN AREAS AHMEDABAD, INDIA

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Introduction Diabetes is common, chronic, disproportionately expensive disorder showing secular trends. WHO predicted that India will have the highest number of diabetics in 2025. So present study was done to know the prevalence of diabetes, to study the socio-demographic profile and Risk factors of diabetes among study population.

Methods Current study was carried out in all the six zones of urban Ahmedabad. Required sample (900) to know the prevalence was stratified and one ward was selected from each zone. Information was collected from persons 20 year and above in standard pre-designed and pretested proforma by house-to-house survey and blood for fasting glucose was collected on next day morning.

Results Out of 904, 125 (13.8%) people were diabetics. 25 (2.8%) people were newly diagnosed, while 100 (11.0%) already had diabetes. The sex specific prevalence was 16.86% and 11.11% for males and females respectively. Prevalence of IFG was 6.0% (6.1% for males and 5.9% for females). The ratio of male & female with diabetes was 1.4:1 (Z=2.51, p<0.05). Mean age of IFG was 44.61±14.44, while the mean age of diabetics was 56.99±12.82 (Z=5.5, p<0.001). Overweight, Central obesity, SBP, DBP, Hypertension, Family history of diabetes, lack of physical activity at

workplace, Sedentary occupation were found to be major risk factors for diabetes.

Conclusions Prevalence rate of diabetes among the study population was 13.8% and Prevalence of IFG was 6.0% which is alarming in this region and policy makers must take it seriously. Difference of around 10–20 years was found between IFG and Diabetes.

SP1-94 DEPRESSION IN BRAZILIAN MUNICIPAL RESIDENTS WHOSE CULTURE OF TOBACCO IS A SIGNIFICANT ECONOMIC ACTIVITY

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Introduction Brazil is the second-largest producer and largest exporter of tobacco in the world. The majority of tobacco production occurs in the southern states, where there is a predominance of family farming. Previous studies point to the excessive use of pesticides used during the culture of tobacco and health effects, including depression. The aim of this study was to estimate the prevalence of depression in a city where there is cultivation of tobacco.

Methods The work was conducted by the National Cancer Institute, in Paraíso do Sul municipality, southern Brazil, between October and December 2007. We selected men and women over 18 years (N=2044). A questionnaire was applied, which sought to characterise their socioeconomic conditions, health and agricultural work. For this study, in addition to depression (the outcome) the following were selected as covariates age, sex, tobacco use, alcohol dependence and exposure to pesticides.

Results The prevalence of depression was 25% in women and 11% in men. When stratified by age categories, it was 27.1%, 42.4% and 34.1% in women aged >29 years, 30–49 years and >50 years, respectively (p=0.004). Among women agricultural workers, the prevalence was significantly greater in those directly exposed to pesticides (31%) compared to those not directly exposed (19%) (p=0.01). The prevalence (both sexes) was higher among those with alcoholism (42.9%), both suspected cases (33.7%) and undetected cases (18.9%) (p=0.002).

Conclusion The prevalence of depression in Paraíso do Sul was higher than other southern regions in Brazil (7%). Additional studies are needed to further investigate this outcome, especially in women involved in the cultivation of tobacco.

SP1-95 TYPE 2 DIABETES MELLITUS AND MALIGNANT NEOPLASM: IS THERE ASSOCIATION?

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Background Type 2 Diabetes Mellitus (T2DM) and cancer are diseases of increasing prevalence whose complications are related to decreased productivity, quality of life and survival. Recent studies suggest association of type 2 diabetes mellitus with cancer of breast, colon, prostate and others. Early diagnosis and proper treatment of these diseases could minimise the high costs for the public health as well as prevent severe complications and sequelae.

Methods Secondary information about hospital admissions in 34 hospitals of Ribeirao Preto/Brazil and 26 other cities were obtained from records of the Center for Data Processing linked to the Department of Social Medicine of Faculty of Medicine of Ribeirao Preto/University of Sao Paulo. The study was approved by the Ethics Committee of HCFMRP/USP.

Results Data of 772.659 hospitalisations which happened from 1998 to 2007 were collected and 70 184 (9.1%) of them were due to malignant neoplasms; 45 167 (5.8%) were due to T2DM and 2204 (0.3%) were of patients with both, malignant disease and T2DM. The mean age was 61.3 (± 13.4), 63.5 (± 12.6) and 65.9 years (± 11.4) respectively. 21% of admissions happened in university hospital of FMRP/USP. The PR of admissions by T2DM and neoplasms was 0.48 with a CI 95% [PR 0.48 (95% CI 0.46 to 0.50)] $p < 0.05$. Subsequent case-control study has shown similar results [(OR 0.40 (95% CI 0.28 to 0.56)] $p < 0.05$.

Conclusion These findings suggest a lower chance of hospitalisation of patients with diagnosis of T2DM and associated cancer. Currently a study to clarify these findings is underway.

SP1-96 SYMPTOMS OF RESPIRATORY ALLERGY AND VEGETABLE AND FRUIT CONSUMPTION AMONG SCHOOLCHILDREN: THE PILOT STUDY IN KRAKOW, POLAND

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Introduction Increasing morbidity of respiratory allergy among children has been observed in the last decades in Poland and across developed countries. Several factors responsible for unfavourable trends were investigated and dietary factors among them. Little is known how the diagnosis of allergy may play a role in decision making regarding consumption of some foods. The aim of the current study was to investigate the frequency of allergy among schoolchildren and to explore potential relationship between respiratory allergy and consumption of vegetables and fruits.

Methods Dietary factors, the frequency of diagnosed allergy and allergy symptoms for the year prior to interview were investigated among schoolchildren in a cross-sectional study. The frequency and the portion size of 77 dietary items were evaluated. Food allergy cases were excluded.

Results Among 62 schoolchildren investigated 6.5% were diagnosed with asthma, 12.9% with eczema. More reported recurrent rash, cough without inflammation, and hay fever. Overall 50.0% of children reported allergy symptoms. The rare frequency of vegetable ($< \text{median} = 13.5$ times/week) and fruit ($< \text{median} = 10.8$ times/week) consumption was defined. The diagnosis of allergy showed decreased risk of having a vegetable rarely (OR 0.23, 95% CI 0.06 to 0.86), but an increase in BMI by 1 kg/m² increased this risk (OR 1.23, 95% CI 1.01 to 1.50). There was no significant relationship between allergy and rare fruit consumption.

Conclusion Data from a pilot study showed a possible effect of the diagnosis of allergy among schoolchildren on their dietary habits especially recommended consumption of vegetables. The results suggest that schoolchildren with allergy more frequently consume vegetables than their healthy peers.

SP1-97 NONTUBERCULOUS MYCOBACTERIA: COMPARATIVE ANALYSIS WITH TUBERCULOSIS NOTIFICATION IN SÃO PAULO STATE (SPS)

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Introduction Occurrence of NTM infections is increasing worldwide. Symptoms and radiological signs of NTM are similar to those of pulmonary tuberculosis (TB). When the TB diagnosis is based on AFB

detection only, eventual NTM diseases can erroneously be treated as TB. The aim of this study is to identify pulmonary NTM notified as TB.

Methodology A database was constructed with NTM records during the 2008–2009 period. The records were compared with TB notifications in the SPS information system during the 2006–2010 period, using ReLink III. This software implements various file processing routines, specially the association with probabilistic record linkage.

Results During the 2008–2009 period, 6754 micobacterial cultures of pulmonary origin were performed, 4895 (72.5%) of which were identified as *Mycobacterium tuberculosis* Complex and 1259 (18.6%) as NTM. Among NTM patients, 449 were notified as TB, with 301 (26%) being considered as matching pairs. In 2009, the treatment outcomes revealed that 38.5% obtained TB cure and 15.4% had diagnosis change. In 2008, 56.8% obtained cure and 27.1% had diagnosis change. The most frequent NTM were *Mycobacterium kansasii*, *Mycobacterium avium* and *Mycobacterium fortuitum*.

Conclusions The data demonstrate that many patients notified and treated as TB had really NTM disease. Evidences support the urgent need of fast diagnosis and adequate information flow for accurate treatment.

SP1-98 "A STUDY ON PREVALENCE OF CARDIOVASCULAR RISK FACTORS AMONG THE SEDENTARY WORKERS OF GOVERNMENT MEDICAL COLLEGE, JABALPUR, INDIA"

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Background and Objectives Urban Indians especially sedentary workers have a high prevalence of insulin resistance, hypertension and cardiovascular disease. We studied the prevalence of pre-hypertension and hypertension, as well their association with cardiovascular risk factors, in office staff of upper socio-economic population in Government Medical College, Jabalpur, India.

Methods A total of 100 adults (age ≥ 20 yr) working in administrative office of high-income group residents in the city of Jabalpur, central India, were invited to be enrolled for the study. The response rate was 100% (n=100). Socio demographic profile, Blood pressure, anthropometry, plasma glucose were measured. The variables contributing significantly to pre-hypertension and hypertension were analysed by appropriate tests of significance.

Results The prevalence of hypertension was 35%, pre-hypertension was 30% and for raised plasma glucose level was 40%. In contrast to hypertension, which was highest in the age group 60–69 yr (54%), prehypertension was highest (33%) in the group 30–39 yr. There was a high prevalence of cardiovascular risk factors in the sedentary workers [central obesity (46.7%) and smoking (30.3% of males)].

Interpretation and Conclusion A high prevalence of pre-hypertension and hypertension were noted in sedentary workers. Increasing age, body mass index, central obesity and diabetes were significantly associated with both hypertension and pre-hypertension. Pre-hypertension was associated with an increased prevalence of cardiovascular risk factors.

SP1-99 DECLINE IN CARDIOVASCULAR MORTALITY AND SOCIAL INEQUALITIES IN THE MUNICIPALITY OF SÃO PAULO: 1996–1998 AND 2003–2005

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Introduction Usually mortality coefficient and cardiovascular disease mortality in particular, have shown decreasing trends since around