

that included probing depth (PD) and clinical attachment level (NIC) DCVI and was represented by one of the following outcomes: Coronary Artery Disease (CAD), Myocardial Infarction (AMI) with or without angina pectoris, or Acute Coronary Syndrome (ACS). The quality of the articles was assessed using criteria recommended in "The Strengthening the Reporting of Observational Studies in Epidemiology-STROBE". In addition, compliance with the guidelines of the guide to meta-analysis for observational studies-MOOSE.

Results Of the 23 studies, case-control eligible, 16 had their results combined using the methodology of meta-analysis. The overall OR was approximately 2.52 (95% CI 2109 to 3009, $p < 0.001$), indicating that individuals with PD have an increased chance of developing ischaemic CDH as compared to those without PD.

Conclusion Observational case-control suggest that individuals with PD are more likely to develop ischaemic CDH, however, further studies are needed for more definitive conclusions.

P2-46 ASSESSING THE HEALTH RELATED QUALITY OF LIFE AND EFFECTIVE FACTORS: A POPULATION BASED STUDY

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Introduction This study has been planned to determine quality of life of people in one health center area, and the effect of sociodemographic factors, hypertension and other chronic diseases.

Methods This cross-sectional study is conducted among residence of age 40 and over, living at the Park Health Center Area in Ankara-Turkey. Three hundred participants from the eligible population ($n=5962$) were chosen by simple random sampling of these 260 (86.6%) were reached. Twenty for questions for sociodemographic factors and chronic diseases and short form 36 (SF-36) health survey questionnaires had been administered to each participant. Data analysis was performed by using SPSS for Windows program, Mann-Whitney U, Kruskal-Wallis and multiple linear regression tests were used for statistical analysis.

Results The mean of general SF-36 score of the study group was 61.8 ± 21.9 (95% CI 59.1 to 64.5). The scores for physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role and general mental health scales were (70.5), (57.8), (64.5), (54.6), (52.8), (77.9), (56.7), and (59.8) respectively. In multiple linear regression analysis; age, sex, education, type of house, annual income per capita, hypertension and the other chronic diseases had significant effect on various scales of the SF-36.

Conclusion The SF-36 scores of the study population were found to be low. It was determined that older age, female sex; low education level, hypertension and other chronic diseases have a negative effect on quality of life. According to results multidisciplinary approach and efforts are necessary for promoting quality of life.

P2-47 INCREASING INCIDENCE OF BARRETT'S OESOPHAGUS: A POPULATION BASED STUDY IN NORTHERN IRELAND

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Introduction Oesophageal adenocarcinoma (OAC) incidence rates have increased in recent decades, particularly among white males in Western societies. Rising Barrett's oesophagus (BO) incidence, the pre-cursor condition for OAC, may explain this phenomenon.

However, increasing BO incidence may also simply reflect changes in endoscopy practices together with improvement in disease recognition. The aim of our investigation was to assess BO incidence over a 13-year period using a population-based register in Northern Ireland.

Methods The Northern Ireland Barrett's oesophagus Register is a population-based register of all adults diagnosed with BO, defined as columnar epithelium of the oesophagus, in Northern Ireland between 1993 and 2005. Annual BO incidence rates were calculated per 100 000 of the population, per 100 upper gastro-intestinal endoscopies and per 100 oesophageal biopsies performed in Northern Ireland.

Results During the 13-year period, 197 635 patients underwent an endoscopy and 9329 of these were diagnosed with BO. Average annual BO incidence rates rose by 2.5-fold, increasing from 31.9/100 000 during 1993–1997 to 80.1/100 000 during 2002–2005. Over the same time, there were 1.3- and 1.6-fold increases in endoscopy and biopsy rates in the population, respectively. Even with increasing rates of endoscopy and biopsy, BO was still diagnosed more frequently per 100 endoscopies and per 100 biopsies.

Conclusion BO incidence rates in Northern Ireland have increased more rapidly than the rate of endoscopies or biopsies. This could indicate that a true rise in BO incidence has occurred, contributing to the increase in OAC seen in Western populations.

P2-48 SECULAR CHANGES OF OVERWEIGHT AMONG BRAZILIAN ADOLESCENTS: AN UPDATE

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Introduction Overweight in adolescents is worldwide and have been growing fast in the three last decades. In Brazil, data from three national surveys show that prevalence of overweight among male fivefold from 1974–1975 to 2002–2003 and flat among female from 1989 to 2002–2003.

Objective To update changing trends of overweight among Brazilian adolescents across last 4 decades.

Methods Data are age-ranged 10–19 years and come from four nationwide surveys: ENDEF-1974–1975, PNSN-1989, POF-2002–2003 and POF 2008–2009. Overweight was classified according to IOTF's purpose as the BMI values greater than the adult equivalent 25 kg/m² critical values. Change in risk of overweight across survey periods was estimated using ratio of prevalence (RR).

Results Among boys, prevalence of overweight was 2.4, 5.7 and 13.2 and 17.3% at 1974–1975, 1989, 2002–2003 and 2008–2009, respectively; among girl, prevalence of overweight was 6.0, 11.8, 12.5 and 16.3% at same survey, respectively. From 2002–2003 to 2008–2009 overweight increased across all age groups and income strata, both sexes. RR for changing trends from 1974–1975 to 1989, 1989 to 2002–2003 and 2002–2003 to 2008–2009 among the fifth poorest male are 2.6, 7.5, 10.1, respectively and among the fifth richest male are 2.1, 3.3 and 4.4, respectively. Among the poorest female RR are: 2.1, 2.4 and 3.7 and among richest fifth are 2.0 1.5 2.1, respectively.

Conclusion In general, overweight expanded stronger in the last decade. Female adolescents in Brazil has reversed flat trend and are going to increase body mass index at all age and income strata.

P2-49 SUBCLINICAL DIASTOLIC DYSFUNCTION IS ASSOCIATED WITH BIOMARKERS OF HEPATIC FUNCTION: RESULTS FROM THE STOP HF STUDY

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College Dublin, Dublin, Ireland; ²Department of Medical Statistics, Informatics and Health Economics, University of Innsbruck, Innsbruck, Austria; ³Heart Failure Unit, St. Vincent's University Hospital, Dublin, Ireland

Introduction This analysis set to investigate the relationship between novel biomarkers of cardiovascular morbidity and mortality with diastolic dysfunction in a primary care cohort at heightened cardiovascular risk.

Methods This is a cross-sectional analysis of 616 participants of the STOP HF study with complete echocardiographic data who have established cardiovascular risk factors and no previously known ventricular dysfunction. Data were also available on medical history, medications, biomarkers of inflammation, lipid, renal and hepatic function and routinely measured clinical parameters. The cohort was categorised into those with and without diastolic dysfunction, omitting those with inconclusive echo data (n=85), leaving a population of n=531 for analyses. Preliminary analyses were run separately for both genders to establish univariable associates of diastolic dysfunction taking the presence or absence of diastolic dysfunction as the binary outcome. All co-variables with p-values ≤ 2 were introduced to forward multivariable logistic regression models to establish the foremost associates of diastolic dysfunction.

Results A high prevalence of diastolic dysfunction (67%) was observed in the cohort. In males, multivariable associates of diastolic dysfunction [Exponential β -coefficient (95% CI); p-value] were younger age [1.132; 1.09 to 1.79; <0.001], the absence of AIIA therapy [2.547; 1.18 to 5.49; <0.02] and higher ALP levels [28.813; 1.96 to 424.39; <0.02]. In females, diastolic dysfunction was associated with younger age [1.085; 1.05 to 1.12; <0.001] and higher GGT levels [4.838; 1.47 to 15.90; <0.01].

Conclusions This analysis demonstrates for the first time that parameters of hepatic function may be coherent indicators of early sub-clinical diastolic dysfunction. In this analysis, their association was superior to that more established risk factors and biomarkers such as BNP in this setting.

P2-50 GGT LEVELS ARE A COHERENT INDICATOR OF CARDIOVASCULAR RISK IN PRIMARY CARE IN BOTH MEN AND WOMEN: RESULTS FROM THE STOP HF STUDY

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Introduction Gamma-glutamyltransferase (GGT) has been re-established as a marker of cardiovascular risk rather than simply an indicator of liver disease. However, there is little data on the associations between GGT and groups with conventional cardiovascular risk factors in the primary care setting. We sought to examine the factors associated with elevated GGT in an Irish primary care population.

Methods We explored the baseline data set of the STOP HF Study, a prospective study of a cohort with defined CV risk factors and no known ventricular dysfunction. To identify multivariable associates of higher GGT, we conducted logistic regression, using GGT above and below the 75th percentile as the binary outcome for males (49 u/l) and females (38 u/l).

Results Complete data were available in 879 participants. Multivariable associates of GGT [Exponential β -coefficient (95% CI); p-value] in males were younger age [0.97 (0.96 to 0.99); <0.02], higher diastolic blood pressure (BP) [1.05 (1.02 to 1.07); <0.001] total cholesterol [1.99 (1.19–3.39); <0.001] and HsCRP [2.01 (1.12–3.57); <0.02]

and lower urea [0.75 (0.63–0.89); <0.001] and HDL [0.33 (0.18–0.61); <0.001]. In females, higher body mass index [1.08 (1.03–1.13); <0.001] and systolic BP [1.01 (1.00–1.02); <0.05] and the application of β -blockers [1.49 (1.27–1.87); <0.02] was associated with higher GGT.

Conclusions We demonstrate that independently and even within its normal ranges, GGT is associated with markers of cardiovascular risk in a primary care population. Particularly in males, GGT appears to be a coherent risk factor associated with incipient underlying disease, in keeping with mechanistic evidence suggesting its role in atherogenesis. GGT measurement is an easily accessible and inexpensive biomarker for cardiovascular risk assessment.

P2-51 HIGH RISK AREAS OF CHD IN A LOW INCIDENCE EUROPEAN COUNTRY

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Introduction Geographical differences in coronary heart disease (CHD) mortality have been widely described, but little is known about the incidence of such disease.

Objective Examine the geographic distribution of CHD hospital admissions from 1997 to 2008, in Continental Portugal, identifying relevant peaks of the disease.

Methods Hospital admissions due CHD (ICD9-CM: 410–414×, 429.2×) were obtained from the National Hospital Discharge Register. Age-standardised hospitalisation rates (ASHR) were computed by triennium (excluding 1997–1999, because of losses in georeferencing) for ages 35–74 years, at municipality level. Spatial statistics methods were applied to smooth ASHR and identify spatial clusters. Results were overlaid with a map of climate regions.

Results There were 356 119 hospitalisations with CHD as primary or secondary diagnosis, more frequent (66.7%) and expensive in men but more fatal and longer in women (p<0.001). Rate ratio (highest: lowest) were 5.2, 5.5 and 4.1 (men) and 9.7, 6.5 and 5.5 (women), respectively in 2000–2002, 2003–2005 and 2006–2008. Moran index of spatial autocorrelation showed moderate degree of spatial dependency (+0.36, +0.33 and +0.43 for men, +0.35, +0.33 and +0.41 for women, in 2000–2002, 2003–2005 and 2006–2008) and spatial clusters were identified. A Northeast-Southwest trend (from lowest to highest values) in ASHR was revealed, coincident with the borderline of the two main climate regions.

Conclusions Accentuated geographic differences in ASHR were observed, although rates remained stable in the study period. Higher fatality and lower cost in hospitalisations of women may reflect gender inequalities in the treatment. Spatial patterns suggested environmental factors are also determinants of CHD.

P2-52 A SOBERING TEXT: DEVELOPING AN INTERVENTION DELIVERED BY MOBILE PHONE TO REDUCE BINGE DRINKING IN DISADVANTAGED YOUNG MEN

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Introduction Disadvantaged men suffer substantial harm from heavy drinking. Effective brief interventions to reduce alcohol