2652 Obesity, waist circumference and metabolic syndrome in the Portuguese population. Insights of the VALSIM study

M.M. Fiuza[1], N. Cortez-Dias[1], S. Martins[1], A. Belo[2]. [1]Hospital Santa Maria, Lisbon, Portugal; [2]Portuguese Society of Cardiology, Lisbon, Portugal

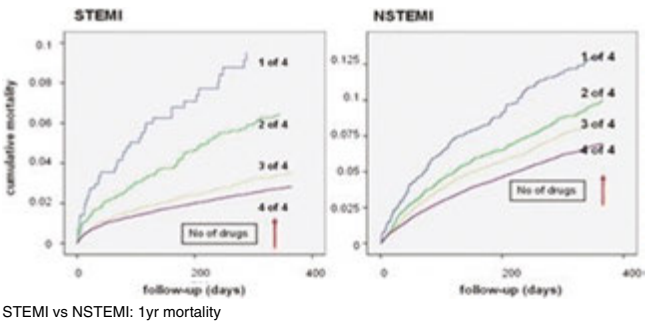
Purpose: To determine the prevalence of obesity (OB), abdominal obesity (AO) and metabolic syndrome (MS) in the portuguese population.
Methods: Descriptive cross-sectional study performed in a primary care setting, involving 721 general practitioners (GP) representative of all regions of Portugal. Patients (pts) $\geq$18 years consulting their GP irrespective of the reason were asked to participate. The participant GP enrolled the first 2 pts of each day. After informed consent, a questionnaire was used to collect sociodemographic, clinical and laboratory data. OB was determined by body mass index (BMI): normal weight (NW: 18.5–24.9 kg/m^2), overweight (OW: 25–29.9 kg/m^2) and obese (OB: 30 kg/m^2). AO was considered when the waist circumference (WC) was greater than 102 cm in men and 88 cm in women. MS was defined by NCEP-ATP III criteria. Multivariate regression analysis was used to estimate the odds ratio (OR) of MS by age, gender, BMI and WC.
Results: A total of 16,457 subjects were evaluated (58.1$\pm$15.1 years; 61.3% women). The sex and age-adjusted prevalence of MS was 29.47%. Risk of MS was higher in women [M:27.5%; W:31.4%; OR: 1.32 95% confidence interval (CI) 1.23-1.42; p$<$0.001] and rose with age (from 11% in $<$35y to 46.7% in $\geq$65y). The sex and age-adjusted prevalence of OB was 26.7% (M:25.3%; F:28.4%); OW was 39.3% (M:45%; F:34.8%), and AO 46.4% (M:33.1%; W:58.4%). Both OB and AO were significantly more prevalent in women, increasing with age. OR for MS in OW and OB was three and nine times, respectively. The association between the risk of MS and AO was higher in women (OR:11.42; 95%CI 10-13.05; p$<$0.001) than in men (OR:13.26; 95%CI 11.45-15.36; p$<$0.001). There was a strong correlation between BMI and WC, but the association was not perfect, since 17.2% subjects with NW had AO. The overall relative frequency of high blood pressure, AO, hypertriglyceridemia, low HDL and fasting hyperglicemia was 57%, 46%, 31%, 26% and 20%, respectively. Pts with MS had also higher levels of serum total cholesterol (212$\pm$43 vs 205$\pm$38mg/dL, p$<$0.001) and LDL-cholesterol (131$\pm$35 vs 127$\pm$33mg/dL, p$<$0.001).
Conclusions: MS, obesity and AO are highly prevalent and strongly associated. As a result of the anthropometric profile of the portuguese population, the correlation between BMI and WC is not perfect. So, both clinical parameters should be evaluated in order to correctly estimate the individual cardiovascular risk.

NEW ASPECTS IN CARDIOVASCULAR DRUG THERAPY

2671 Survival benefit of combined secondary prevention therapy after acute myocardial infarction: Data from the UK Myocardial Infarction National Audit Project (MINAP)

I.B. Squire[1], R. Chen[2], J.S. Birkhead[3], H. Hemingway[2], A. Timmis[2] on behalf of MINAP Academic Group. [1]University of Leicester, Leicester, United Kingdom; [2]University College London, London, United Kingdom; [3]Northampton General Hospital, Northampton, United Kingdom

International guidelines recommend the prescription of anti-platelet (A), beta-blocker (B), ACE inhibitor (ACEI) and statin (S) after ACS.The impact of these treatments in practice can be assessed only through population-based data.The Myocardial Infarction National Audit Project (MINAP) collects data on ACS patients admitted to all 256 acute hospitals in England and Wales.
Methods: We used the MINAP database to assess survival benefit associated with prescription, during index ACS admission,of A, B, ACEI and S. We used logistic regression analysis to assess survival benefit associated with (i) prescription of 1, 2, 3, or 4 drugs (ii) individual drug classes (iii) combinations of drugs.
Results: Between Jan 1 2004-31 Dec 2005 60382 patients were discharged alive after ACS. Of these, 48601 (80.6%) received four, 8597 (14.3%) three, 2431 (4%) two, and 699 (1.2%) one secondary prevention drug. Compared to those receiving 4 drugs, those receiving fewer were older, more often female or from deprived areas, and less often admitted under care of cardiology (p$<$0.001). 30-day and 1-year mortality showed a graded inverse relationship (p$<$0.0001) with number of secondary prevention drugs, for both STEMI and NSTEMI. Compared to 1 drug, adjusted HR for 1-year mortality was 0.73 for 2, 0.58 for 3 and 0.46 for 4 drugs, similar in men and women. For A (OR 0.85),B (0.68), ACEI (0.58) and S (0.67), prescription was less likely after NSTEMI.Compared to any prescription of A, prescription of B (OR 0.88), ACEI (0.55) improved 30-day survival, and each combination of A+B+S, A+ACEI+S or ACEI+B+S improved 30-day survival by $>$50%.
Conclusions: In routine practice prescription of individual secondary prevention drugs show differing survival benefit after ACS. Drug combinations show incremental benefit.



STEMI vs NSTEMI: 1yr mortality

2672 Effects of tadalafil on health-related quality of life in patients with pulmonary arterial hypertension

J. Pepke-Zaba[1], A. Beardsworth[2], M. Chan[3], M. Angalakuditi[2]. [1]Papworth Hospital, Cambridge, United Kingdom; [2]Eli Lilly & Co, Indianapolis, United States of America; [3]Eli Lilly & Co, Toronto, Canada

Purpose: Pulmonary arterial hypertension (PAH) is a serious condition for which there are approved treatments, but no cure. Current treatments for PAH target the prostacyclin, endothelin or nitric oxide pathways with the goal of improving exercise capacity, quality of life and ultimately survival. The effects of Tadalafil, a phosphodiesterase type 5 (PDE5) inhibitor currently indicated for treatment of erectile dysfunction, on exercise capacity and quality of life were assessed in patients with PAH.
Methods: A double-blind clinical trial randomized 405 patients with PAH to placebo or oral Tadalafil at doses of 2.5, 10, 20, or 40 mg/d. At baseline and 16 weeks, exercise capacity was measured by the 6 minute walk test (6MWT), and quality of life was assessed using 2 generic instruments; the Short Form 36 (SF-36), which consists of 36 items in 8 health domains; and the EuroQol 5D (EQ-5D), which consists of 5 questions that together construct a utility index score, and a visual analog scale (VAS) for patient self-assessment of their own health. Change in 6MWT from baseline to end of study of each dose compare to placebo, the primary efficacy endpoint, was tested using a permutation test on rank, stratified by randomization factors. Change from baseline to week 16 in the SF-36 domains and EQ-5D measures of each dose compare to placebo were tested using ANCOVA controlling for baseline randomization factors.
Results: Of the total 405 patients, 61% patients had idiopathic PAH and 65% had symptoms in WHO functional class III. Compared to baseline, at 16 weeks, the mean 6MWT distance was increased at all Tadalafil doses. However, the 40mg/d Tadalafil group showed statistically significant improvement (P$<$0.001) compared with placebo. All Tadalafil groups had significant improvement at 16 weeks compared to baseline in the Physical Functioning, Vitality, and Social Function domains of the SF-36, while the Tadalafil 40 mg/d group also had significant improvement in the Role-Physical, Bodily Pain, and General Health domains (all P$<$0.01 compared with placebo). For the EQ-5D, all Tadalafil groups had significantly greater utility index scores at 16 weeks, with the greatest improvement in the Tadalafil 40 mg/d group (P$<$0.0001) compared with placebo. Only the Tadalafil 40 mg/d group had an increase in VAS from baseline to 16 weeks compared with placebo (P$<$0.05).
Conclusions: Tadalafil 40mg significantly improved exercise capacity and multiple aspects of quality of life, as measured using the SF-36 and EQ-5D, in patients with PAH.

2673 Effects of insulin sensitivity and anti-inflammation after supplement with N-3 polyunsaturated fatty acid in metabolic syndrome

J.Y. Kim[1], J. Yoon[1], Y.J. Youn[1], J.K. Seong[1], N.S. Lee[1], H.S. Wang[1], K.H. Lee[1], S.H. Lee[1], K.H. Choe[1], H.M. Choe[2]. [1]Wonju College of Medicine, Yonsei University, Wonju, Korea, Republic of; [2]Inje University, Ilsan, Korea, Republic of

Objective: Metabolic syndrome (MS) is characterized with insulin resistance and systemic inflammation. We investigated the effects of insulin sensitivity and anti-inflammation after supplement with N-3 polyunsaturated fatty acid (N-3 PUFA) in patients with MS.
Methods: Subjects with MS defined ATP-III were randomly enrolled in placebo and N-3 PUFA group. N-3 PUFA group was received 2 g of N-3 PUFA from baseline to 6 week and 4 g of N-3 PUFA from 6 to 12 week. Fasting serum lipid profiles, LDL subtraction, high sensitivity C-reactive protein (hs-CRP), interleukin-6 (IL-6), tumor necrosis factor-α (TNF-α), fasting insulin and glucose level were measured at baseline, 6 and 12 week. Insulin resistance was calculated using homeostasis model assessment of insulin resistance (HOMA-IR).
Results: Of the 60 subjects, 53 (26 of N-3 PUFA and 27 of placebo) completed the study. Baseline clinical and laboratory characteristics were similar in both groups. Mean percentage reduction in serum triglyceride (TG) level from baseline to 6 week (N-3 PUFA vs. placebo: 27.2% vs. 2.3%, p = 0.013) and 12 week (N-3 PUFA vs. placebo: 31.9% vs. -8.9%, p = 0.003) showed significant difference between two groups. Serum hs-CRP level was significant lower in N-3 PUFA group than placebo group at 6 week (N-3 PUFA vs. placebo: 0.13$\pm$0.12 vs. 0.29$\pm$0.26 mg/L, p = 0.02) and 12 week (N-3 PUFA vs. placebo: 0.11$\pm$0.13 vs. 0.27$\pm$0.25