Conclusions: Both the NAFLD and the epicardial adipose layer thickening can increase the risk of CAS. In the patients with the severe CAS, the NAFLD patients are more likely to increase the accumulation of the VFT. Under the same thickness of the epicardium, the degree of CAS is lighter in the NAFLD patients; it may be related to AMPK wich may have the myocardial protective effects.

GW25-e3379

Investigation and analysis on high normal blood pressure and risk factors in pilots

Zhou Chunlei
Department of Aviation Medicine, the 454th Hospital of PLA

Objectives: To study the prevalence and related risk factors in the flying personnel with high normal blood pressure(BP), so as to provide the basic data and theoretical basis for the primary prevention of hypertension and the cardiovascular events.
Methods: 994 flying personnel were divided into normal BP group and high normal BP by judging if the systolic and diastolic BP was higher than 120 and 80 mmHg respectively. Age, body mass index(BMI), waist circle(WC), serum total cholesterol(TC), triglyceride(TG), high density lipoprotein(HDL), low density lipoprotein(LDL), uric acid(UA) and blood glucose(BG) were compared. History of smoking was surveyed. Measurement data were compared with t test, enumeration data were compared by chi-square test, the related risk factors were screened by multivariate Logistic regression by SPSS 13.0.
Results: There are 401 persons in normal group, and it is 40.34%. There are 593 persons in high normal group, and it is 59.66%. There is no statistical significance of the incidence of high normal BP in different flying duties and the type of aircrafts (P>0.05). Level of age, smoking, BMI, WC, BG, TG and flying time in high normal BP group were significantly higher than those in normal BP group (P<0.05), but no significant differences on UA, TC, LDL and HDL were found between groups.
Conclusions: The prevalence of high normal BP in flying personnel is high and associated with many risk factors. Medical interventions for controllable risk factors are suggested.

GW25-e0434

Relationship between non-alcoholic fatty liver disease and coronary artery disease severity

Sun Ling, Zhang Di, Xu Dan, Zhao Yuechao, Sun Ling
Fushun Central Hospital

Objectives: The association between angiographical severity of coronary artery and NAFLD remains controversial. The purpose of the study was to examine the relationship between visceral adiposity form of non-alcoholic fatty liver disease and coronary artery disease severity.
Methods: Consecutive patients who planned to undergo coronary angiography due to a suspected coronary artery disease were enrolled in this study. Abdominal computed tomography was performed before angiography to detect NAFLD. Patients accepted the two examinations at the same time and had successful image data were finally selected into the case group. CAD was defined as a stenosis of at least 50% in at least one major coronary artery. The severity of CAD was assessed by the number of vessels involved and the vessel score multiply severity score (Gensini score). Significant stenosis was defined as more than 70% diameter stenosis. P<0.05 was accepted as being significant.
Results: 248 patients (45.8%) were detected, by abdominal CT, to have NAFLD and 382 patients out of 542 (70%) were detected, by CAG, to have significant CAD. Age , male gender, diabetes mellitus and obesity were associated with presence of NAFLD. According to the results of logistic regression analysis, the presence of NAFLD independently increased the risk for CAD, as seen in CAG [odds ratio (OR), 95% confidence interval (CI): 7.585 (4.617-12.461); P<0.001] . NAFLD was more commonly found in patients as the extent of CAD increased (P<0.001).
Conclusions: The presence of NAFLD is associated with high severity of CAD, requiring that patients with abdominal obesity be investigated for the presence of NAFLD and those with NAFLD be attentively followed-up for the presence and severity of CAD.

GW25-e3095

The association between cardiovascular disease and erectile dysfunction among middle-aged and elderly men in south china

Xiao Hengjun[1], Chen Jun[2], Pu Xiaoyong[3], Zhang Hao[1], Zhang Yan[1], Hu Cheng[1], Zhang Bin[2], Gao Xin[1]
[1]Department of Urology, the Third Affiliated Hospital of SUN Yat-sen University, Guangzhou, [2]Department of infertility & sexual medicine, the Third Affiliated Hospital of SUN Yat-sen University, Guangzhou, [3]Department of Urology, Guangdong Provincial People's Hospital, Guangzhou

Background: The prevalence of erectile dysfunction (ED) is high among middle-aged and elderly men. In particular, the severity and prevalence both increase greatly with aging. ED and cardiovascular disease (CVD) share many risk factors such as smoking, excessive alcohol intake, physical inactivity, dyslipidemia, diabetes, and hypertension. Both of them determine endothelial dysfunction and atherosclerosis, resulting in disorders of penile and coronary circulation. Because penile artery size is smaller compared with coronary arteries, the same level of endothelial dysfunction causes a more significant reduction of blood flow in erectile tissues compared with that in coronary circulation. Thus ED could be an indicator of systemic endothelial dysfunction. The prevalence of CVD is growing with the rapid improvement of Chinese living standard in the past thirty years. This study is designed to in identify which patients would benefit from cardiologic assessment when presenting with ED.
Methods: A total of 103 male patients aged 40-70 years old (mean age 58.3 years) with ED in southern China were recruited. ED was assessed by International Index of Erectile Function 5 (IIEF-5) score. The presences of risk factors for CVD were evaluated by lifestyle questionnaires in those men.
Results: CVD increased according to severity of ED, adjusted for age, smoking, total cholesterol level, hypertension, and body mass index (P<0.01, by analysis of covariance). Of those patients with CVD in coronary heart disease, hypertension, and dyslipidemia, IIEF-5 scores were reported by 10.9±4.1, 15.2±3.9, and 18.3±3.6, respectively. Low IIEF score (<12) showed a significant increased risk of CVD compared with mild ED (P<0.001). The prevalence of CVD in mild, moderate and severe ED were reported by 5.3% (3/57), 26.5% (9/34), and 41.7% (5/12), respectively. Risk factors for CVD are significantly associated with ED (P<0.01).
Conclusions: Our results demonstrate that men with ED, especially those patients presenting with moderate-to-severe ED should be identify men at higher risk for CVD events. These findings suggest that ED usually precedes CVD onset, and it might be considered an early marker of symptomatic CVD.

GW25-e3554

Pay attention to the spread and promotion of appropriate technology in health education of cardiovascular diseases

Ren Zheng, Niu Wenyi
School of Public Health, Peking University, Beijing

Objectives: The major of people only focus on treatments instead of prevention and control when it comes to cardiovascular diseases. Appropriate technologies belong to preventive health care which can be afforded and universal used by people. Effectiveness, universality and economy are three essential characteristics.

The essay summarizes appropriate technologies in the prevention and control and health education of cardiovascular diseases, so that to generalize them among public groups.
Methods: As the primary participants of "Eleventh Five-Year" National Science and Technology Support Project-"Study on Screening and Evaluating Consumer Health Knowledge and Technology", we have taken 8 kinds of controllable risk factors of cardiovascular diseases from clinical areas and public health into consideration. We also have combined existing basic prevention methods with literature learning and review, expert discussion, quantitative survey, qualitative interview, communication material making, package information resources development and common people classes, etc.
Results: Eventually, we summed up the integrated appropriate technologies including health management technologies, measuring blood pressure for the first time, salt limitation technologies, reasonable movement methods, psychological support technologies and early recognition methods, etc. They are respectively suitable for different groups in the prevention and control of cardiovascular diseases. (1) Establish community electronic archives among cardiovascular patients. This is an effective management of diseases that can be available for medical personnel in a comprehensive and dynamic way. (2) Contents of health education should be varied and distinguished based on the features of target populations. In the work of health communication, we can yield twice the result with half the effort by using scientific as well as artistic health communication skills, and use plain languages which are featured by its straightaway contents, motivational and contagious effects. Key points have been screened, refined and summarized from a great deal of information about diseases prevention and control. Then the key contents about disease risk factors, early detection, behavior guide, treatment and rehabilitation have been able to be summarized in brief sentences. 30 pieces of core information about cardiovascular diseases have been summarized in specification standards into the general practitioner version, and 29 pieces of that have been summarized into the general version. Cartoons, pictures, wall maps, and movies should be vastly used in health education materials in order to make the information plain, clear and concise. (3) Develop and provide individual management tools. These methods including personal dietary and physical activity guidance materials, balanced diet maps, limited salt spoons and pots are useful. At the same time, we have summarized the advantages of "Food exchange serving" with reference system in controlling dietary intake. (4) Evaluate physical activities by quantizing. For example, take conversion between "Thousand Step Activity" and other movements, so that to avoid blind sports which can bring physical discomfort. (5) radually reduce the happening of smoking and drinking by using "Social Support", "Turning Attention" and "Grandson Therapy".
Conclusions: All the above appropriate technologies can be promoted on the basis of evidence-based researches and pilot practice. These methods can also be considered as interventions which are applied for the public.