Editor's Page

Smoking Cessation and Health Economics

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During the last decades many campaigns have raised public awareness of the high incidence of cardiovascular disease, while coronary heart disease has been established as the leading cause of death in the western world.[1] Cardiologists, and society as a whole, have experienced tremendous advances in our comprehension of cardiovascular risk factors and of the mechanisms leading to acute coronary syndromes, as well as huge progress in the interventional management of atherosclerotic coronary artery disease, all of which have greatly improved patients' survival and quality of life.[2-6]

However, people continue to adopt unhealthy habits, despite the time and effort spent by health systems on implementing a healthier life style.[7] Moreover, the availability of effective smoking cessation programmes is limited in some countries by the size of the physician workforce or the lack of trained medical personnel.[8] Given these data, Peletidi et al, in this issue, provide a literature review of electronic databases (Science Direct, Google Scholar, Web of Knowledge, Pub Med, NCBI, Scopus, and The Cochrane Library) entitled "Smoking cessation support services at community pharmacies in the UK: a systematic review", in which they describe how medical personnel, because of time restrictions, failed to effectively implement tobacco-use cessation interventions.[9] Importantly, based on their systematic review, they propose that smoking cessation programs based on pharmacy personnel can substantially increase patients' awareness of pharmacy-led smoking cessation services, improving patient adherence to heath care providers' advice.

Also concerned with nicotine abuse and smoking is another review in this issue, entitled "Efficacy and safety of electronic cigarette for smoking cessation: a critical approach", by Ioakeimidis et al.[10] During the last few years, the electronic cigarette has become a new trend, which is presented as a means to stop tobacco smoking, or as a healthier substitute for cigarette use.[11,12] However, as Ioakeimidis et al emphasise, limited data exist concerning the long-term efficacy of electronic cigarettes for smoking cessation, while their efficiency in reducing nicotine addiction is questioned. In addition, the authors stress the potential unidentified harmful effects of this type of smoking.

Overall, we have to take note that, as personal beliefs and misleading advertisements continue to shape public opinion, smoking cessation policies have failed, especially in people who have received little education and have limited access to health system services.[13] Moreover, according to the EUROASPIRE III survey, smoking cessation treatment is underused[14] and smoking therefore continues to cause 50% of avoidable deaths in smokers, especially deaths of cardiovascular etiology.[15]

Beyond their straightforward impact on morbidity and mortality, smoking trends also impose an enormous burden on health care systems. Data from the United States have shown that, for every 10 dollars spent on healthcare, 90 cents is due to smoking,[16] indicating the need to further combat the smoking epidemic. These data must be analysed while taking into account that health care systems are faced with continuing reductions in resources and an increase in medical expenses, especially for cardiovascular diseases. It is estimated that cardiovascular disease is responsible for 17% of expenditure in the United States, while the costs of cardiovascular care are expected to triple by 2030.[17]

Therefore, primary and secondary prevention

measures, and the control of modifiable risk factors such as smoking, hypertension, and diabetes mellitus, must take priority as the most cost effective medical approach, especially when it is applied to high risk groups.[1] Importantly, systematic registration of medical complications and their management is an alternative way of appreciating and reducing health-related costs. In the cardiovascular field, cardiac rhythm management devices not only offer a substantial improvement in the quality of patients' lives, but also increase their life expectancy.[18-20] However, as the use of implanted devices increases, it has been recognised that the rate of complications is significantly high (reaching 12.5% according to some reports) and can increase patients' hospitalisation and health-related costs.[21] This topic is addressed in this issue of the *HJC* in an interesting original research article by Fanourgiakis et al, entitled "Complications related to cardiac rhythm management devices (CRMD's) therapy and their financial implication: a prospective single-center two-year survey".[22] In this study, the authors focus on the complication rates of cardiac rhythm management devices and on the additional costs attributable to these complications. After an extended follow up (2 years) of 464 patients, a relatively low complication rate was recorded, emphasising the cost-effectiveness of cardiac rhythm management devices, at least in well organised, certified high volume centres. In line with this evidence, Andrikopoulos, in an editorial comment,[23] underscores the discrepancy between the ample medical data concerning the usefulness of cardiac rhythm management devices and the noticeable lack of evidence concerning the health-related costs of these devices, concluding that a nationwide registry of complications and additional costs must be implemented. With regard to the implementation of novel interventional techniques for the management of arrhythmia related conditions Tzeis et al present a case series of cavotricuspid isthmus-dependent flutter, treated using an 8-mm ablation catheter equipped with a mini electrode.[24]

At this point we have to observe that, during the last decades, advances in cardiology have not been limited only to intervention techniques and device improvement, but have also encompassed imaging modalities and capabilities. Strong evidence for this is provided by Nemes et al, in their article entitled "Left atrial volumetric and strain analysis by three-dimensional speckle-tracking echocardiography in noncompaction cardiomyopathy: results from the MAGYAR-Path study".[25] The article focuses on the left atrial function of patients with noncompaction cardiomyopathy, which is typically characterised by ventricular dysfunction, thromboembolic events and arrhythmias. By using novel echocardiographic techniques, such as three-dimensional speckle-tracking echocardiography of the left atrium, the authors conclude that, as in other cardiomyopathies, noncompaction cardiomyopathy is not limited only to the left ventricle, but also affects left atrial function. Interestingly, in a related editorial comment, "The pivotal role of studying the left atrium by speckle tracking in heart failure",[26] Parthenakis and Vardas highlight the importance of three-dimensional speckle-tracking echocardiography for assessment of the left atrium, as the two-dimensional technique seems to be an unreliable and non-reproducible tool. In addition, they emphasise the importance of left atrial reservoir function, as it is associated with the prognosis of patients with noncompaction cardiomyopathy.

The topics in this issue of the *HJC* cover a broad field, with interesting cardiovascular themes, and the Editor of the *HJC* hopes that readers of the journal will positively evaluate our efforts to promote cardiologists' continuing medical education.

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