Letters to the Editor

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ECG-based screening: not only for athletes

We appreciated the paper by Pelliccia et al., emphasizing the efficacy of the Italian preparticipation screening program for identifying hypertrophic cardiomyopathy (HCM) in athletes. Their findings may indeed explain the lower rate of athletic field deaths due to HCM reported in Italy compared to the USA, where standard 12-lead electrocardiography (ECG) is not routinely performed. Indeed, comparable findings have been obtained by other screening programs. In Italy, we specifically addressed the efficacy of military pre-enrolment medical evaluation in detecting HCM in 34 910 male conscripts. The diagnostic sensitivity for HCM and the clinical yield of such screening, based on standard ECG, together with family history and physical examination, proved comparable to that reported by Corrado et al. in athletes. Furthermore, our follow-up data were consistent with the hypothesis that withdrawal of affected individuals from strenuous physical activities might effectively prevent sudden cardiac death. Conversely, Eckart et al. demonstrated that sudden death in US military recruits (not screened by routine 12-lead ECG) was mainly due to cardiac abnormalities including HCM, and was mostly related to exercise (86%). Altogether these data prompt the need to add standard ECG to family history and physical examination in each screening protocol of large populations, with the aim of diagnosing heart disease and prevent sudden cardiac death.

Moreover, the relevant findings of Pelliccia et al., raise further important questions for every-day office clinical practice: should the indication for standard ECG be extended also to candidates for non-competitive sport activities? If so, at what age should we consider its large-scale implementation? Should community pediatricians consider ECG screening in adolescents before they are handed over to general practitioners. As military duty is no longer mandatory in Italy, as well as in most Western countries, we believe that these issues deserve appropriate debate beyond their application to competitive sports: the potential implications of cost-effective screening strategies seem too important to be confined to the limited population of voluntary competitive athletes only.

References


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Beta-blockers in asymptomatic dilated cardiomyopathy: to b-block or not to b-block?

We read with interest the comparison between the different Guidelines on chronic heart failure (CHF). In the article, the discrepancies and possible explanations are discussed. However, an important disagreement between the experts, which is likely to affect patient’s management is not reported. In the Guidelines of the ACC/AHA, beta-blockers are recommended for all patients without a history of MI who have a reduced left ventricular ejection fraction (LVEF) with no HF symptoms (Level of recommendation I, Level of Evidence C). Moreover, beta-blockers are recommended for all stable patients with current or prior symptoms of HF and reduced LVEF. (Level of recommendation I, Level of Evidence A). In the Guidelines of the HFSA the combination of a beta-blocker and an ACE-inhibitor is recommended as routine therapy for asymptomatic patients with an LVEF < 40%. (Post-MI: Strength of Evidence B; non-post-MI: Strength of Evidence C). According to the ESC Guidelines, beta-blockers should be considered for the treatment of all patients (in NYHA class II–IV) (Class of recommendation I, Level of Evidence B). However, in patients with LV systolic dysfunction, without symptomatic heart failure beta-blockade is recommended only after an acute myocardial infarction to reduce mortality (Class of recommendation I, Level of Evidence B), but not in patients with dilated cardiomyopathy. Although controlled clinical trials are lacking in the use of beta-blockers in patients with a low EF and no symptoms, it would be important for the clinician to know that expert consensus is not different in Europe and North America. In conclusion, the authors are right that “the greatest remaining question is why we need four guidelines, including three from North America”.7

References


