


6. Pelliccia A, Maron BJ. Athlete’s heart electrocardiogram mimicking hypertrophic cardiomyopathy (HCM), which is the leading cause of cardiac death in athletes. The accurate diagnosis of HCM is a more important problem than its risk stratification profile.2,4 An early and correct diagnosis of HCM, particularly in asymptomatic subjects, is crucial during pre-participation screening in athletes. However, detection of an increased risk group remains to be a major problem with many aspects, including medical, social, ethical, financial, and legal.3 The law allows the medical profession to establish the appropriate nature and scope of pre-participation screening of athletes, based on its collective medical judgement.4 But, financial limitations lead to difficulties in both the diagnosis and designation of recommendations for the screening programmes of many countries in the world.

Recently, Maron5 reported the differentiation criteria between HCM and an athlete’s heart and HCM. Even though the presence or absence of left ventricular hypertrophy is not an accurate diagnostic criterion, the phenotypic spectrum may be different among individuals with the same mutation.6 It is also well recognized that some gene carriers may not have abnormal ECGs or echocardiograms.

Indeed, based on the data of the Italian national pre-participation screening programme, it may be argued that ECG is an effective tool for identifying young athletes with HCM. In addition, according to the European Society of Cardiology Consensus Statement,7 the 12-lead ECG has been proposed as a simple and cheap test for detecting cardiovascular abnormalities. Furthermore, the 12-lead ECG shows a broad range of abnormal patterns in trained athletes; however, the determinants and clinical significance of these abnormal ECG patterns in trained athletes are still uncertain. Also, Pelliccia and Maron8 have demonstrated abnormal ECGs in 40% of the 1005 athletes tested, but structural cardiac diseases were identified in only 5% of these. A specific finding in this study is a lower incidence of grey scale in athletes, even though high prevalence of HCM is thought to be expected in the general population.9 It is often assumed that about 2% of highly trained adult male athletes show mildly increased left ventricular wall thicknesses of 13–15 mm, which define a grey zone where extreme expressions of athlete’s heart and mild morphological forms of HCM overlap.

Although echocardiography may not be cost-effective, it is a valuable non-invasive method for differentiating cardiac pathologies other than athlete’s heart.10 Echocardiography is not only helpful for the accurate diagnosis of HCM, but also facilitates its risk stratification, such as the level of outflow tract obstruction. Recently, an easily measured tissue Doppler index was proposed as a potentially useful method for distinguishing athlete’s heart from structural heart disease.

In conclusion, it is clear that there is still a long way to go for the discrimination of these two entities. However, it appears that evaluation of myocardial function by new echocardiographic techniques may be useful in solving this problem.

References


9. Corrado D, Pelliccia A, Bjornstad HH, van-Buuren F, Anastasakis A, Heidbuchel H, McKenna WJ, Thiene G; Study Group of Sport Cardiology of the European Society of Cardiology. Documented in post MI patients with NYHA class I or II, or III, a left ventricular EF <0.35, documented episodes of asymptomatic non-sustained ventricular tachycardia (VT) and inducible non-suppressible VT on electrophysiologic study. Therefore, based on the results of these two large-scale trials, it seems reasonable to treat post MI patients according to MADIT I data during the first 9 months, and according to MADIT II data thereafter. This strategy may reduce the number of unnecessary ICD implantations.


References


4. Georgios K. Ethymiadis First Department of Cardiology AHEPA Hospital Stilip. Kiriakidi 1 Thessaloniki 54637 Greece Tel: +30 2310944830 Fax: +30 2310946473 E-mail address: ethymiadis@med.auth.gr

5. Nikolaos E. Mezilis Saint Lukes Hospital Panorama, 55236 Thessaloniki Greece

6. Ioannis H. Styliadis First Department of Cardiology AHEPA Hospital Stilip. Kiriakidi 1 Thessaloniki 54637 Greece

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8. Role of delayed enhancement MRI in patients with acute coronary syndrome and unobstructed coronary arteries

We read with interest the paper by Assoum et al. on the use of magnetic resonance...