CORRESPONDENCE

Utilization and Implementation of Sports Medical Screening Examinations – Survey of More Than 10 000 Long-Distance Runners

by Prof. Dr. med. Dr. Sportwiss. Dieter Leyk, Dr. Sportwiss. Thomas Rüther, Dipl.-Sportwiss. Max Wunderlich, Dipl.-Sportl. Alexander P. Sievert, Dr. med. Oliver M. Erley, Prof. Dr. med. Herbert Löllgen in volume 36/2008

Sudden Cardiac Death

We agree wholeheartedly with the authors in emphasizing the great importance of examinations performed by qualified sports physicians. They also rightly emphasize that the proportion of overweight, untrained persons and other risk carriers is increasing steadily in open, competitive sports and popular sports. On this background, we are surprised to find that the cited guidelines on preventive examinations in sports list merely a resting ECG as an obligatory apparative investigative measure for each subject, whereas the exercise ECG is apparently indicated only for certain subgroups and further tests—such as lung function and echocardiography—only in persons in whom certain conditions are suspected or symptoms found.

It has been sufficiently confirmed that cases of sudden cardiac death during sports activity—even in celebrated athletes—are often caused by cardiomyopathies or other structural cardiac anomalies, which were not known during the person's lifetime. Coronary heart disease is also increasingly found at a younger age. The youngest patient with a coronary bypass who is personally known to me was operated on at the age of 25; the youngest patient known to me who died suddenly from infract-related cardiac death without any preceding symptoms (diagnosis made at postmortem) was only 24.

In view of these aspects it seems to make sense to extend the apparative part of a sports medical screening examinations to include a 12-lead exercise ECG and echocardiography. Both methods can make a great contribution to detecting hemodynamically relevant coronary insufficiencies, potentially life threatening exercise induced arrhythmias, cardiomyopathies, right ventricular dysplasias and aortic stenoses even at clinically inapparent stages. Such additional diagnostics are likely to facilitate a far wider reaching diagnostic clarification that would enable to select early on those subjects with a potential risk factor. Future guidelines should reflect this state of affairs.

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In Reply:

All screening investigations that our healthcare system offers have to be regarded as a compromise of cost and benefit, on the basis of sufficient evidence. We thank Piper for his additional remarks on diagnostic tests in sports medical screening examinations and the ensuing discussion. Which parts of the examination should be obligatory is the subject of controversial discussions internationally. In the US, routine examinations include merely a medical history and clinical examination; even the resting ECG is controversial. In Europe, qualified ECG diagnostics are the required standard. For further recommendations, especially exercise ergometric tests or cardiac echocardiography, evidence based data are currently lacking. The diagnostic tests recommended by Piper are routinely conducted only in top competitive athletes. This indicates the fundamental problem in screening examinations—namely, who covers the cost? Sports medical screening examinations are not included in the range of services covered by statutory or private health insurers, and patients thus have to pay for themselves (IGeL).

The current study shows that especially older leisure time and weekend athletes, as well as those embarking on a sports regime for the first time or re-entering their exercise regime, are at increased risk. Considering the widespread overweight and lack of exercise among Germany's population and the costs incurred as a result of these, we do not understand that such screening examinations are not covered. The authors are of the opinion that it is incumbent on insurers and politicians to act now, so as to give prevention campaigns—often promoted to great effect in the media—a foundation that is sports medically and ethically safe. DOI: 10.3238/arztebl.2008.0900b

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Conflict of interest statement

The authors of both the letter and of the reply declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.