CORRESPONDENCE

# Myths of exercise induced right ventricular injury: the bright side of the moon

In their meta-analysis, the authors of the article[1] describe an injury of the right ventricle (RV) and cite in this context the increase in biomarkers as an indication for such an injury. This statement is not tenable.[2] The increase in biomarkers can hardly be used as an argument for a right ventricular injury and often has a different meaning.[3 4]

On the other hand, the authors fail to mention all the reports about a non-injury of the (RV) by a permanent load.[5–7] In many serial examinations no pathological findings could be shown among elite athletes[5] and in the case of endurance/marathon runners[6 7] no chronic injury of the (RV) could be detected. Compared with sedentary[6] or active[7] controls (leisure-time runners), ultra-endurance runners showed similar RV global strain values[6] and ventricular ectopy.[7] An exercise induced isolated fibrosis of the RV (excepting after myocarditis) has not been well documented yet.

In the main studies cited by the authors, an exact documentation of the fluid uptake directly after and during the race has not been carried out. Because of the considerably higher survival rate of an endurance athlete compared to the general population the increase in biomarkers and the right ventricular injury by endurance sport should be interpreted with great caution,[2] and should first be verified by prospective studies with exact documentation of fluid uptake, weight controls, body composition and calorie uptake before and after the race.

In their present form, the statements about a right ventricular injury by sport cannot be accepted[2]—although they are, of course, open to discussion.

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