

Prevention of sudden cardiac death caused by commotio cordis - rugby wiew

Authors:

Z Babic ¹, H Pintaric ¹, H Matasic ², M Misigoj Durakovic ³, ¹UH Sestre milosrdnice - Zagreb - Croatia, ²Magdalena - Specialized Hospital for Cardio-Vascular Surgery and Cardiology - Krapinske Toplice - Croatia, ³Faculty of Kinesiology, University of Zagreb - Zagreb - Croatia,

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Commotio cordis is a rare mechano-electric arrhythmogenic event, occurring mainly during sports activities, where precordial nonpenetrating blow triggers ventricular fibrillation and could be cause of sudden cardiac death (SCD). However, some authors suggest that this entity may be associated with coronary vasospasm, segmental changes in myocardial contractility or high degree atrioventricular block. This events have been predominantly reported among young male baseball/softball and football players in United States (US) and soccer, cricket and hockey players internationally. Unexpectedly higher frequency among soccer players than expected, seems to contradict the prevailing notion that air-filled projectiles convey less risk than do those with solid cores (e.g., baseball or lacrosse balls). Data about incidence of commotio cordis as a cause of SCD in athletes varies between 2.9% and 19.9%. US Commotio Cordis Registry reported increasing of aborted SCD rates due to commotio cordis during time, especially among white and competitive athletes. The most important for that improved survival rates (up to 25-30%) are automatic external defibrillator provision during high-risk sports events. Development of chest protectors, safety balls (e.g., baseball) and safer athletic environment in general are important to avoid or reduce this catastrophic injuries. Also, introduction of safe sports regulations and teaching of athletes proper techniques prevent commotio cordis. In comparison with other mentioned sports, this entity is relatively rare in rugby. Authors, explain how sports regulations can prevent commotio cordis in one rough contact sport. In comparison with other mentioned sports, commotio cordis is relatively rare in rugby. Authors, using their experience as sports doctors, explain how sports regulations can prevent this entity even in one rough contact sport.