Myocardial infarction in a previously healthy middle age body builder

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Introduction: Controversy exists regarding the safety of testosterone replacement therapy following recent report of an increased risk of adverse cardiovascular events. A total of 7 population-based studies analyzed the association between cardiovascular disease and levels of total testosterone. Although 3 of these studies found statistically significant higher cardiovascular mortality associated with lower levels of total testosterone, the others 4 studies did not confirm these results. In both medical and lay literature, one of the principal adverse effects generally associated with anabolic steroid use is the increased risk for myocardial infarction. However, direct evidence showing cause and effect between anabolic steroid administration and myocardial infarction is limited. Many of the case studies reported normal coronary arterial function in anabolic steroid users who experienced myocardial infarction, while others have shown occluded arteries with thrombus formation.¹⁻³

Case report: 53-year-old male patient without standard risk factors for cardiovascular disease, had taken i.m. testosterone once a month during a period of 15 years and was admitted in August 2017 with ST-segment elevation myocardial infarction (STEMI) of the anteroseptal wall. Primary percutaneous coronary intervention (pPCI) of the proximal left anterior descending coronary artery (LAD) with implantation of the drug-eluting stent (3.5x18 mm) was performed immediately. One hour later, patient had chest pain with ST-segment elevation localized in anteroseptal leads which was induced by early coronary stent thrombosis and rePCI of previously treated LAD was performed with an implantation of a second drug-eluting stent (3.5x15 mm). One hour later, transitory ST-segment denivelation of the inferior wall was reported in ECG. Echocardiography showed non-dilated left ventricle with mild reduction in systolic function (EF 45%) with hypokinesis of anterior wall and apex. Level of testosterone in patient was above reference value.

Conclusion: The use of testosterone with known coronary artery disease is yet controversial.

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LITERATURE

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