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Heart Complications Related To Androgenic Anabolic Steroids

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Abstract: Androgenic anabolic steroids are synthetic steroid drugs (Anadrol , oxadrin , dianabol , deca-durabolin , equipoise) contribute significantly to the development of masculinity , although it's use may be associated with several life threatening heart problems , including myocardial infarctions since it increases the level of LDL (bad cholesterol) and decreases the level of HDL (good cholesterol) , AAS can also cause sudden cardiac death due to the increased heart oxygen demand after cardiac hypertrophy and fibrosis , finally AAS may lead to thrombosis due to the initiation of clotting factors .

Introduction : Androgenic-anabolic steroids , also known in public as the body building steroids , are synthetic steroids proven to significantly increase body masculinity , especially for people who wish to be heavily masculine in a shorter period of time , even though it achieves body masculinity , it's constant and prolonged use causes negative side effects and complications which range from light unwanted side effect such as acne , baldness , and the deepening of voice in women , to moderate and not life threatening to seriously life threatening side effects and complications , moderate side effects such as testicular shrinkage and reduced sperm count in men and abnormal changes women's menstrual cycle , even more seriously heart attacks can occur due to the increased formation of LDL (low density lipoprotein) , also known as the body's bad cholesterol , additional heart problems result from initiated vascular thrombosis , cardiac hypertrophy and also sudden vasospasm , and finally liver damage can occur due to the excessive use of these steroids , aside from the physical effects , these steroids also have mental or psychological side effect , in many cases after the withdrawal of steroids , some people , especially serious body builders who may feel inconfident , seeing themselves as lean even though perfectly fit , causing them to reach a quite depressed and even suicidal state , a condition known the reverse anorexia syndrome , although the effect of androgenic-anabolic steroids specifically on the heart is what this report is mainly about :

Discussion: Heart problems resulting from the excessive use of androgenic anabolic steroids include myocardial infarction due to atherosclerosis since AAS lowers the level of HDL (good cholesterol) and raises the level of LDL (bad cholesterol) , also thrombosis may occur due to the initiation of the blood clotting factors, myocardial hypertrophy , fibrosis and necrosis may occur due to the hyperfunction and vigorous exercising of the cardiac muscles .^{1,2,3}

Study 1 : A 21-year-old, previously healthy weight lifter collapsed during a bench press workout. He had taken anabolic androgenic steroids parenterally for the previous several months. Pertinent autopsy findings included marked cardiac and renal hypertrophy and hepatosplenomegaly, with regional myocardial fibrosis and focal myocardial necrosis. Nandrolone (19-nor-testosterone) metabolites were identified in postmortem urine .³

Study 2 : In the united states a survey of about 500 people using Androgenic-anabolic steroids showed that 78.4% of them were not body builders nor professional athletes meaning that they weren't very experienced at using steroids , 59.6% reported using at least 1000 mg of testosterone or it's equivalent per week , 99.2% of the AAS users self-administer injectable AAS formulations , up to 13% report unsafe injection practices , such as sharing and reusing needles which could lead to the spread of harmful infectious diseases , 25% of the users additionally use insulin and growth hormone to enhance the anabolic effect , and finally 99.2% of users reported negative unwanted side effects .²

Study 3 : two cases of sudden cardiac death (SCD) were reported involving previously healthy bodybuilders who were chronic androgenic–anabolic steroids users. In both instances, autopsies, histology of the organs, and toxicologic screening were performed. Our findings support an emerging consensus that the effects of vigorous weight training, combined with anabolic steroid use and increased androgen sensitivity, may predispose these young men to myocardial injury and even SCD.¹

Conclusion : after learning about the several different side effects and complications of androgenic-anabolic steroids which may potentially be health hazardous and life threatening , it's safe to say that it is best to completely avoid androgenic-anabolic steroids and focus more on more natural and safer ways of body building .

References:

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