

THE USE OF DIETARY SUPPLEMENTS BY SERBIAN ELITE ATHLETES

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Introduction

Dietary supplements (DS) are often used without a full understanding or evaluation of potential benefits and risks, and without consultation with a sports nutritional professionals. The aim of this study was to examine the use of DS among Serbian athletes who were preparing for London Olympic games 2012. Their DS purchase were mandatory checked by Anti-doping agency of Serbia (ADAS). This project led to creation of database for present study.

Methods

In this cross-sectional study, that covered the period from 2011. to the end of 2012. data were collected from supplements purchase request, containing only DS brand name. Requests were received for ADAS opinion: a) from an athlete individually or from b) National Federation (NF). Ingredients were checked on official website of DS manufacturer. Following parameters were analyzed: athlete/NF identity, number of ADAS opinions, DS brand, DS manufacturer, frequency of DS type, Australian Institute of Sport (AIS) classification and cost-benefit analysis.

Results

Total of 89 ADAS opinions were issued for 35 athletes and 9 NF. 204 diferent DS brands distributed to 766 ordered boxes were analysed for athletes and NF. 85% of individual athletes were from athletics. Average number of DS used by athletes was 6.6 ± 3.4 . Most popular DS manufacturers were based in United States. The most commonly DS were: amino acids (13%), glutamine (10%), sports drink (7.6%), creatine (7.5%), whey protein (6.4%) and multivitamine/minerale (6.3%). According to AIS classification, majority of DS were from group C (46%) with little proof of beneficial effects and others were from group A (39.6%), group B (13.6%) and even 0.7% from group D (banned DS or DS with high risk for doping positive test, like Tribulus terrestris or stimulants). Average price of supplements per day was 1.6 € or approximately 50 € per month/athlete. Cheapest DS were vitamins and minerals and the most expensive DS were sports bars.

Discussion

This study shows that Serbian olympic athletes supplementation is based on DS that have little proof of beneficial effects on performance enhancement. Potential negative outcomes could include a decrement in performance, acute or long-term harm to health, and a positive doping result. Athletes apparently used supplements without considering the effects of their normal diets. There is a need for professional nutritional counseling among Serbian elite athletes.

References

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