FUTURE LAB

High performance sports laboratory

Intravenous Therapy Use In Elite European Adult Track And Field Athletes

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Purpose:

to evaluate the incidence of intravenous therapy and to identify the most commonly used pharmacological substances among elite European endurance athletes.

Steak is the best source of creatine (as well as iron and carnosine)
100 grams of cooked steak contains approximately 0.5 grams of creatine

Methods and Study Design:

design: this cross-sectional study included 153 elite track and field athletes (age 22.7 +/- 4.6, 94 males, 59 females), who completed an anonymous survey created on Google Forms. The athletes were divided into three groups: national (n=80), international (n=61), and extra (n=12, medalists in the major international competitions) tiers.

Results:

57% (n=84) of respondents confirmed the use of intravenous pharmaceutical substances not prohibited by the World Anti-Doping Agency to enhance performance and optimize post- load recovery. 17.7% (n=26) of the athletes used them regularly in training process and 39.5% (n=58) only in preparation before major competitions. No statistically significant difference was found in the frequency of intravenous therapy practice between sexes (p=0.14) and tiers (p=0.35). The most commonly used substances were actovegin (46.4%), phosphocreatine (41.8%), amino acids (35.9%), reamberine (35.3%) and hepatoprotectants such as essentiale (35.9%) and heptral (28.7%).

M2. CHEMICAL AND PHYSICAL MANIPULATION

The following are prohibited:

M2.2. Intravenous infusions and/or injections of more than a total of 100 mL per 12-hour period except for those legitimately received in the course of hospital treatments, surgical procedures or clinical diagnostic investigations.

Conclusions:

the use of intravenous therapy among elite European track and field athletes is considerably high. Actovegin is the most commonly used substance. Most often, IV therapy is used in preparation before major competitions.

Significance of Findings:

intravenous administration of the most commonly used substances can be performed without violating anti-doping rules. However, the possible risk of complications and the lack of evidence must be taken into account.

Actovegin is a deproteinised derivative of calf blood and is not registered in many countries around the world