SIDE EFFECTS OF STEROIDS

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Abstract: This article is highlighting useful information about the side effects of certain substances with potential for growth and hypertrophy of the muscles.

Key Words: side effects, steroids, muscles


1. Introduction

In a situation where it was found and it was shown that most athletes use different substances for stimulation, being wide and including range from inoffensive up to doping agents, two questions appear: where is the boundary that separates the two lower categories – those harmless for health, and those presenting high risks and side effects for users? How moral is the doping phenomenon, and what the side effects are generating?

2. Content

It is clear to everyone that the first reaction to the stunning results of, for instance, a top sprinters is astonishing. The second reaction is of course admiration. After that everybody is looking for superlatives, adjectives and nice words that, if we take it as example on Usain Bolt went so far as to label it as alien. In reality there is no outer Bolt, no Superman, but a normal man from Jamaica, an area of the tropics that produces champions not only for Caribbean but lowercase letters either for USA, Canada, United Kingdom, even for Slovenia if we take into account the end of the career of the legendary Merlene Ottey. All of these reactions are followed by a question concerning, uttered from case to case or an overtly more veiled: is this guy clean or what kind of chemicals were putted into him running out of the shotgun?

It is hard to believe that, when he appeared in the foreground with his results, Usain Bolt was upheld for the most severe tests. Therefore, until it could prove something against him, Usain Bolt is clean from the sporting point of view. Remains to be seen whether the phenomenon of Jamaica is really a phenomenon, or merely another robot created by pharmacological laboratories.

The story of the fight against manufacturers of products seems to be eternal, nor did it offer any hope that it will ever end. The list of prohibited substances increases from year to year, seeing with eyes, and at the time that a "new entry" is added to her already enough athletes have finished to use that product. That's why it becomes clear that any sportsperson legally consume all kinds of cordials, to enhance the capacity of effort. Only the border of the so-called stimulants prohibited substances is quite fluent, as well as the list is from year to year. Those who say that
all athletes are doping are not too far from the truth, but the claim is not rigorously argued since some ingredients are legal. The fact is that the great pacemakers effect becomes, by virtue of continuous doping fight, increasingly more expensive and increasingly less to the fingertips. And from this point might begin the discussion of the moral crusade aspect of doping, which refers to the equal opportunities ahead of any competition. Only that, in today's society, equal opportunities is an illusion, even in circumstances in which it would make abstraction of doping. For example, a young African, physically and psychologically talented for the great performance, but poor, there will never become a great athlete as long as he has no where to train, and especially with who. How else is a football club from Romania exceed the Champions League groups other than accidentally, especially if attention is turning to look to budget, not even may approach of the big clubs in the world. And in the case of Athletics there is evidence that the difference is made starting with the materials of the contest. Many years ago, an American manufacturer of sports equipment manufactured a trawl-marvel of synthetic fibers. The manufacturer gave a sample of an American and a Swedish, both first-hand athletes at that time. In just one year, began a mad race between Seagren and Isaksson, braking the world record with tens of centimeters, while the other competitors where transformed into simple audience. At the summer Olympics (Munich, 1972), the International Olympic Committee decided to ban these poles in the contest until the time of manufacture in series, what did the Olympic title to be won by a German (Wolfgang Nordwig). Since then, we have continually improved pole, but no one has ever put the issue of "equal opportunities". So doping consists of two aspects, one being the moral (which seems relatively), and the other really seriously and hence much more important. The medical problem is unquestionably above all because, at the time of the doping substances injurious to health and further development of the body, they must be categorically prohibited. (Manescu, C.O., 2010). If the "equal opportunities" issues can be reviewed with respect, to side effects of steroids are very much to be said, and very few to do, unfortunately many of the side effects arising from the use of substances banned from being irreversible. For a better understanding of what the negative side of the use of these products must be known to the entire list of processes induced by their consumption. These are the following:

Inhibiting the natural secretion of hormones of the body – this is probably the best known adverse effect of the use of steroids. In almost all cases the introduction of additional hormones in the body the endocrine system sends message to curb its production. This happens due to the natural tendency of the body to maintain a perfect balance within it, a process called homeostasis. To maintain the homeostasis of the body trying to avoid having too much of a certain hormone, and thus send a message to the testicles in order to slow down natural production. Ironically, this may be intâmpâlnat, whether the hormone inserted into the body is testosterone, or any other. However, depending on the type of addition introduced steroid body will react by slowing production at its various levels, concluding that if additional hormone levels increase then the testosterone produced naturally by the body is going to decrease.

Effects on the liver – it is known that all of the blood passing through the liver, steroids, as the liver is the body's filtering system. Everything goes through the liver is decomposed by various enzymes and then transferred to the circulatory system. Ingestion of steroids increases the quantity of enzymes in the liver, which means impairment of the natural balance of the system. Fortunately it was observed that this process is reversible, bodybuilders who used steroids going back to normal amounts of digestive enzymes after about a year.

Effects on cholesterol – steroids cause, generally, a decrease in HDL (good cholesterol) and an increase in the level of LDL cholesterol (bad cholesterol). HDL helps protect the arteries carrying unused cholesterol to the liver, where it is broken down, the other side the LDL acting exactly opposite. Using steroids cause high cholesterol levels, HDL and LDL but also much this process is reversible after stopping the steroid use.

Development of breast tissue in man – steroids develops gynecomastia, or male breast tissue. This is due to an excess of estrogen in the body, a process called aromatase, in which
Testosterone is converted to estrogen. That excess estrogen sidestep its way to receptors in breast tissue where they connect. Symptoms are itches at breast level, followed by pain. The only solution to solve the problem is surgical intervention.

Encourage the occurrence of acne – steroids can cause the occurrence of acne due to a whole series of factors, among which the first two are the type of steroid use, and dosage. Sebacce glands of the skin have a special affinity to dihydrotestosterone, which is an androgen hormone that the body produces it naturally from testosterone via the enzyme 5-alpha reductase inhibitors. Increase in the activity of sebaceous skin glands transforms into a fat guy, and this in combination with a host bacteria and the opening skin pores.

Nervousness and aggressiveness – studies on athletes who have used steroids it was observed that has altered psychiatric symptoms including aggression, violence, anger, and sometimes psychosis. However must be noted that this kind of people with these traits of behavior were the same even before having the steroid use inclination.

Hair loss – the challenge is scientifically that the steroids contributes to the rise in severe hair loss in men. The cause is a strong reaction which dyhidritestosteron (DHT) and other derivatives which are converted into DHT, a challenge to the scalp.

Causing cardiovascular problems – steroids are considered responsible for the cardiovascular status changed, many of the users having enlarged ventricles.

Virilization in women (development of male features) – steroids in women is causing the develop of male characteristics, such as the thickening of voice due to vocal cords, hair growth on the body, the increase of the external genital parts, facial and body acne and hair loss.

Prostate enlargement – the introduction of steroids can cause both enlarging the prostate and prostate cancer. Everything is blamed on the reaction between estrogen and DHT or testosterone. The prostate gland has several periods of growth throughout the life, first showing itself in puberty as a result of the testicular secretion of androgens. Then between adolescence and adulthood remains at the same level regardless of the level of androgens in the body much later manifests the second phase of growth, as a result of dyhidrotestosteron action in the body.

The increase in blood – is probably the most easily remedied with the side effect of using steroids, and is blamed on increased physical activity, but also on account of additional retention of sodium and water in the body.

Negative effect on the kidneys – steroids are stressing the kidneys, do not allowing them to work beyond their normal capacity. The kidneys are involved in filtering systems and excretion of body, and when a foreign substance is administered, they work harder. The most commonly reported is very dark-colored urine, and one of steroid most dangerous for kidneys is Trenbolon.

The weakening of the immune system -- have been reported a lot of research findings which show that anabolic steroids can modulate the immune system. According to the active substance they may be pests, or in some cases language. For example, testosterone is imunosupresive, while nadrolonul is subcutaneous. Both are used in the treatment of persons living with HIV/AIDS (which anyway have immune system destroyed) due to the fact that induce increase in lean muscle mass.

Sterility in both sexes – a common effect of the use of steroids is to cause temporary sterility in both men and women. In fact steroids are so effective from this point of view that, as an irony of fate, the World Health Organization has approved some research regarding the possibility of their use as a male contraceptive. In women they go up to interrupt the menstrual cycle, while the men up at the point where natural sperm production is halted.

3. Conclusions

The side effects of using products with the steroidal foreground should really worry those ones who think to use them.
4. Proposal

Use of steroids should not be encouraged in any way, the only way toward a healthy optimal muscle development remains the most natural, based on a proper diet, exercise, and nutritional suplement ie which does not produce any side effects.

REFERENCES: