When Did Steroids Become Our Friend?

Most people don’t think of PWAs and steroids. Neither do most doctors. Maybe they should.

August 1, 1994 By Denny Smith

Fatigue, depression, poor appetite, weight loss. Anyone who has endured an opportunistic illness is pretty familiar with those symptoms. But why are many people facing those problems even in the absence of an obvious opportunistic infection (OI)? If they are not the result of an OI, can they be treated?

Many physicians now believe that such symptoms are often signs of hormone deficiencies resulting directly from HIV infection or at least from the protracted battle waged by the body to control HIV. These deficiencies cause the body’s metabolism to lose nutrients and misuse protein, and they foster chronic exhaustion, low motivation, diminished sexual drive and a slow but dangerous wasting of mass.

Researchers have identified several different hormone deficiencies that frequently occur in PWAs. It is essential that once a hormone deficiency is suspected, physicians conduct tests to determine exactly what, if any, hormone levels are reduced.

One of the most common types of hormonal deficiencies observed in PWAs is anabolic insufficiency, when the body has low levels of the hormones which enable it to process protein and build tissue.

The principal anabolic hormone is testosterone which is commonly known as the male sex hormone. While it is present in men’s bodies at much higher levels, testosterone is actually present -- and plays an important role --in womens’ bodies as well.

Testosterone has both anabolic (tissue building) properties and androgenic ones, which are the masculinizing effects (hair growth, aggression, libido). The anabolic steroids are analogs to testosterone which have been designed not just to emulate the hormone but to maximize its anabolic properties while minimizing its androgenic ones.

Anabolic steroids are best known for their ability to help the body synthesize protein and build lean muscle mass. As such, they would seem to be an obvious weapon for people with AIDS to to use to forestall or combat wasting. But they are also commonly used by doctors to treat many anemias as well as some autoimmune disorders by stimulating bone marrow production of new blood cells.

Because those are also disorders which frequently accompany AIDS, anabolic steroids may have many potential benefits to people with AIDS.

But replacing anabolic steroids has been controversial in the medical community. Largely due to the widespread abuse of steroids by athletes and bodybuilders, they are controlled drugs in the United States requiring a triplicate prescription. Many doctors are reluctant to prescribe them.

Some researchers and physicians who see the obvious relationship between anabolic steroids' properties and PWAs' needs are trying to move beyond the controversy. They often find it necessary to point out the differences between the anabolic replacement therapy, which they encourage, and anabolic abuse. First, the doses used to treat anabolic deficiency (100-200 mg per week) are much lower than those used illicitly by bodybuilders (frequently 500-1,000 mg per week). Second, anabolic steroid replacement therapy is usually given in safer injectable form. Despite what you may have heard, anabolic steroids themselves have not shown significant toxicities. Tales of liver damage in long-term steroid users arise from the toxicity of oral steroids which are 17-methylated (like some birth control pills, which have also been linked with liver damage). Finally, bodybuilders are not treating an insufficiency in the first place.

Dr. Gary Cohan sees HIV positive patients in his practice at Pacific Oacks Medical Group in Los Angeles. He has found that at least 50 percent of patients with an AIDS diagnosis are hypogonadal -- they have testosterone levels which warrant replacement treatment. He strongly feels that many have been helped by anabolic steroids, which he usually prescribes in the form of injectable testosterone, 200 mg. every two weeks.

If a patient does not respond to testosterone alone, Cohan adds a supplemental steroid called nandrolone (Deca-Durabolin). He is not afraid of falling under the steroid abuse shadow. "A lot of physicians are immobilized by the Anabolic Steroid Control Act of 1990. But we're confident that this is a valid, beneficial treatment for many people [living with AIDS]. The testosterone we administer is replacement therapy, based on verifiable low blood levels and obvious clinical symptoms. And we don't see the toxicities from injectable testosterone that you get with the oral anabolics."

Researcher Judith Rabkin, professor of clinical psychology at Columbia University, agrees with Cohan. She recently conducted an intriguing pilot study of the effects of testosterone which focused on the emotional, as well as the metabolic, health of HIV positive men. In preparing for her study, Rabkin found a large stockpile of relevant medical literature, since testosterone figures in many medical specialties, including endocrinology, contraception, transexuality and sports medicine.

The participants in her study were persons with less than 400 CD4 cells and a serum testosterone level below 400 nanograms per deciliter. The formulation used was testosterone cyprionate, given up to 400 mg. biweekly. Following 73 patients in an eight week open trial, she found that 85 percent reported significant improvement in libido. About three-quarters of those with mood problems prior to treatment reported improved moods, which interestingly is about the same

improvement rate as is reported in studies of antidepressant medications. There was no statistically significant change in CD4 cell counts, but many of the participants reported increased energy and appetite. Rabkin noted that, to be effective, the administration of testosterone must really be combined with a supportive nutrition and exercise program.

Quite a few participants expressed amazement with their newly found selves and implored Rabkin to expand the study. She was glad to do so. “AIDS is a progression of losses and if you can restore some of those losses, people will be only the better for it.”

Last October, the Food and Drug Administration (FDA) approved a daily-wear, transdermal scrotal patch to deliver testosterone to hypogonadal men through gradual release, thus avoiding the annoyance of injections and the toxicities of the oral pills. Alza Pharmaceuticals, a pioneer in drug delivery through wearable patches, developed the scrotal patch which is now available under the name Testoderm®.

Both Rabkin and Cohan speak about testosterone treatment for PWAs with compassion and a glint of excitement, as if the formula for a lost elixir had been rediscovered and dusted off at just the right moment. Taking an even broader, more aggressive approach to the issue is Dave Purdy, a Los Angeles treatment advocate and founder of the nonprofit Anabolics for AIDS. Purdy has been raising the idea of anabolic steroids, not just testosterone, as AIDS treatments for several years, but has been consistently frustrated by physicians who would not consider anabolics for their patients without proof of efficacy.

But, as Rabkin found with testosterone, the character and function of androgenic and anabolic hormones have been well documented in medical literature for several decades. Proof of their effectiveness is as close as the nearest library. Purdy suspects that the recalcitrance of many physicians to prescribe steroids is really due to fear of association with the drugs’ abuse by bodybuilders and perhaps, as well, to America’s seemingly endless antidrug hysteria.

He has developed what he thinks is an optimum treatment protocol for individuals with HIV-associated wasting and fatigue: 100 mg. of nandrolone decanoate administered once a week by injection. (Generic nandrolone, like testosterone, is quite inexpensive.) Like Rabkin, he says that adequate protein intake and exercise are important for exploiting the treatment’s potential.

Purdy has a solid rationale for thinking that some synthetic anabolics may be superior to testosterone in the context of treating AIDS. “Testosterone is primarily an androgen, while some of the synthetic steroids are primarily anabolic in their effect. Since masculinization is not the point of the treatment, especially in women with HIV, why not focus on those steroids such as nandrolone that are lean-tissue building in purpose?”

Women also have necessary levels of testosterone, lower than the levels produced by men, but important for anabolic activity. Cohan and Rabkin have not yet treated women with testosterone replacement, but both are willing to do so. Cohan notes that they must first be very well informed about the androgenic (masculinizing) effects, some of which may not be reversible. Anabolic

steroids may be a more logical choice. The better anabolic steroids have anabolic/androgenic ratios greater than that of testosterone, so even women can generally take standard doses of these steroids with minimal risk of masculinization. This option may be important. Some researchers have suggested that women's natural testosterone levels being lower than men's may be in part responsible for a tendency among women with HIV to fare worse than men.

Like Rabkin and Cohan, Purdy sees enormous therapeutic potential perhaps being squandered because of misinformation or insufficient information in the AIDS community. No one believes that anabolic steroids alone can significantly alter HIV progression but their benefits appear to present a significant treatment break for people with AIDS.
