

Performance enhancing drugs in sports and the role of doctors: are there guidelines?

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Abstract

There is little data in India on the use of performance enhancing drugs in sports. But personal and incidental information shows that their use is far more extensive than is believed. This use occurs beyond the arena of high-level competitive sports. Even if the guidelines of the national and world anti-doping agencies were to become effective, they would not impact the larger environment where such drug use appears to be extensive. Which ethical guidelines advise the sports medical practitioner in prescribing medicines and training regimes for the athlete? Of particular concern is the role of paediatricians since training for sports or physical fitness is increasingly a youth phenomenon. The following is a discussion note, prompted by personal and anecdotal experience.

Some years ago, after India organised a triumphant Commonwealth Games, three top medal-winning athletes tested positive for drugs. The news prompted an avalanche of information and revelations. First, the athletes all vehemently denied having taken performance-enhancing banned drugs (PEDs) of any kind. "Am I mad?" asked one of them, "Would I knowingly take something that would have me banned from competitions in my peak years?" Others said that they dutifully took anything that the coach prescribed, adhering completely to all training requirements. The fact that the team had a foreign coach, whose training methods may have been different and who had not been fully accepted by the Indian coaching circles, made it easy for everyone to happily shift the blame.

There were also those who pointed out that the athletes had, after all, been under the supervision of consulting doctors throughout. How was it that the medical consultants had not discovered the use of drugs among these participants? Worse, had they in fact known of it and kept quiet?

A number of questions have been posed in the media and in sporting circles: Was this a result of poor testing procedures? Were the athletes as innocent as they said they were? Were the coaches or designated doctors at fault? But hovering above all this, and mostly unarticulated, are these other questions: Was this an aberration or is this just the tip of the iceberg? Do these results indicate that use of PEDs is far more prevalent than we know? And if this is so, what is the social psychology of PED use?

Most young athletes know, by their early teens, that there are drugs that enhance performance and that some of their competitors do take them. "Locker room" talk at many of the

athletic meets that I participated in at school, almost always had gossip about how some girl or other was regularly taking PEDs. Girls would suddenly have gained mass and muscle in less than 10 months; young athletes would boast that their coach had "given them something" at the medical post before their major events; and I realised why some school coaches and 'guardians and sports chaperones' would not let their students mingle with others. There was never any educational literature on it from the games authorities; the doctor attending hushed and shooed me away when I innocently asked if I could have that something that helped me run better! This isn't to detract from really talented sportspeople out there; but every serious school athlete learns quickly to ignore all this and never mention it to anyone.

In a paper dealing with the broader issues in doping (1) Sigman points out that in an environment where sports is a socio-cultural phenomenon – and where elite athletes are creating "body image attitudes" among the general population – doping as a phenomenon in sports affects us all. This is so in many countries in the West and increasingly so in India. In this context, is there enough concern among healthcare practitioners about this phenomenon given the growing community of athletes, as well as the casual athlete, the physical culture freak and the sporting fan? As Sigman asks, "Are we all dopes?"(1).

Many sports medicine practitioners deal with young people, even children. What kind of ethical framework do they use? What is the responsibility of the medical profession in all this? There is a special need for open discussion on the ethics of PED use and on the ethics of banning PED in general; and of the role of physicians, pharmacists and hospitals in sports in relation to India.

With the setting up of the National Anti-Doping Agency (NADA), athletic organisations have been expecting a comprehensive anti-doping policy that includes not only measures to detect and curb their use but also to promote the spread of information and educational programmes. Unfortunately, the measures focus more on detection than on understanding drug use and the role of the many stakeholders. Nor do they describe the role a medical expert should play in achieving a dope-free sports world.

What ethical guidelines regulate the interaction between athlete and doctor? How do practitioners negotiate their responsibility to prepare athletes to win and also keep them safe, healthy and secure?

The context

Briefly, there are two socio-economic layers among those who pursue sports: One, a large section of the population, particularly first generation learners, for whom sports is proving to be a key alternative career; a faster track than the conventional education-employment route. Many government and private companies provide preferential employment opportunities for winning sportsmen and women. But the opportunity cake is small and there are many competitors. So winning, even at that school level competition, is all important. Second, sports also presents a means of achieving quick fame and fortune, if one is lucky and clever enough to deliver superior performance in certain sports. Third, in a bid to encourage sports, the government has sought to recognise sporting prowess by awarding special concessions, often in terms of additional grades or marks for admission into institutions of higher learning. This means that a win at school, college or district level competition is a stepping stone even to an academic career.

At another level, parents in the rising middle class are an expanding market for "health supplements" that will enhance children's sporting and/or academic reach. With this has arrived the huge market for supplements and drugs of every kind that give one an edge over others in every kind of competition and not just in sports: vitamins, growth supplements (the much discussed anabolic steroids), supplements for increasing muscle strength, others for keeping kids alert for their work days packed with studies and sports. That some of these include steroids and other harmful preparations is hardly surprising. Inevitably parents too fall into the trap of "anything goes" to achieve success in life, academic or sporting. And they fall prey to coaches and clubs that push athletes to the extreme in the name of "producing world class athletes" for say, the 2016 Olympics, and so on. On the one hand, there is a growing interest in sports and participation in sports is becoming more acceptable than it was in many circles in the previous generation. On the other, the interest is distorted and a win-at-all-costs attitude may be leading to problems later. The medical profession can play an important role in restoring the ethical balance.

There is little education on drugs of any kind, and even less on banned drugs, for athletes. NADA under the world anti-doping body has yet to get its act together. A poor pharmaceutical regulatory system allows the marketing of drugs and "supplements" that are banned or have been withdrawn in many other countries. A growing non-regulated market for physical culture and "fitness" outlets just encourages this.

There are complex ethical issues emerging in our country in the field of sports and medical practice and I am not sure that anybody is addressing these in India.

The International Federation of Sports Medicine (FIMS) has an elaborate code of ethics (2) that lays down guidelines on the behaviour of doctors practising sports medicine. I have seen no comparable code in India. The Indian Association of Sports Medicine does not appear to have a code of ethics; or at least it

is not freely available. It is not on their website where it should be. Surprisingly even the constitution of the Association (3) does not list ensuring ethical practice as a part of its objectives. The World Anti-doping Code does not offer specific guidelines for the behaviour of medical practitioners (4). Nor does NADA. Even if NADA were to become more proactive on drug use in sports, it would still leave a huge arena where drug use for enhancement of performance is common. This can only be addressed by the medical profession, who as paediatricians or orthopaedic doctors, or school doctors are playing a critical role in determining drug use of all kinds.*

"Drugs" and their uses

PED use is not only found in competitive sports. It also occurs in arenas that are less covered by any kind of code of sports practice. For instance, let us take the use of protein "stackers." These are specifically designed proteins that are used with high weight training. Lifting excessive weights pushes the body to the limit, making the muscles break down. "Stackers" build on top of muscle tears instead of fixing the broken striations and assisting in repair. This produces layer upon layer of muscle. These are widely prescribed -- ask any "body builder" in your neighbourhood, or go to any "sports supplement" store -- and not only to athletes. And doctors prescribe them too.

The FIMS code says: "The sports medicine physician should oppose and in practice refrain from using methods to improve performance artificially such as those prohibited by the IOC." Does this code apply in India?

All PEDs are best used in association with a specific training regimen. For instance, your neighbourhood gym trainer will prescribe ingestion of whey as a means of building up the body and losing fat. Also prescribed with their regular ingestion will be a certain level of exercise. But the trainer may neglect to tell the sports enthusiast that that without a certain high level of exercise, whey (or its equivalent) may be at worst, harmful or at best, plain useless.

There are the much-debated anabolic steroids. In the past, athletes have tested positive for pseudo epinephrine and were stripped of their medals. Pseudo epinephrine is in most common cough and cold medications as an antagonist to antihistamines and as an anti-inflammatory. However, it is banned because pseudo epinephrine gives you an immediate faux energy boost. Naturally occurring epinephrine in the body triggers the brain's motivation (reward) response and makes the user feel elated, energetic, confident and motivated to succeed. Pseudo epinephrine, as the name suggests, mimics the effects of epinephrine but only at the bodily level, providing the athlete similar advantages. This is why PSE is a banned drug in elite sport.

Should doctors who know that their patients are using some of these drugs and supplements provide them with advice? Is it their ethical duty to discourage the dangerous use of such supplements? According to the FIMS and the World Anti-Doping Association codes it is the duty of medical practitioners

to advise patients against the dangerous use of supplements when they know that they are being used. How do doctors in India respond to these situations?

Elite athletes also undergo surgeries and they may be not just for high-end repair of injuries but also corrections that enhance performance. With this comes an accompaniment of drugs. I have no idea how prevalent these surgeries are in India; but going by the ads for liposuction, breast reduction and enhancement and so on, would PE surgeries be far away? What ethical norms govern these surgeries? Would the medical profession only advise patients against them if sporting authorities have banned them? Or would they use a different ethical compass that places athletes at the centre of concern?

Where does ethics play a role in determining the training (including nutrition and supplement and drug regimen) of athletes? By the FIMS code doctors are even supposed to "oppose training and practices and competition rules as they may jeopardize the health of the athlete." So then, what kind of training or equipment should be regarded as ethically questionable?

And then there are the day-to-day issues. Anecdotally, there is a sharp spurt in the use of all kinds of supplements for children and adolescents. Internationally, since the 1990s there is a huge highly profitable supplement industry producing a variety of products for those who want to bulk up, lose weight, grow taller, develop larger muscles, have better limb strength, enhance attention span, not to mention products that postpone periods, reduce breast growth, etc. Some of these are suggested to adolescents who may not even be aiming at a sports career.

According to the FIMS code doctors have special responsibilities with regard to young athletes. This would mean that doctors, especially paediatricians, have a particular and additional responsibility to ensure that young athletes do not use performance enhancing substances and are not led into using them by coaches and trainers. And yet, how many paediatricians will discourage the use of growth supplements of one kind or another by parents ambitious for their children? Even if they don't prescribe them, how many will educate parents on this issue? However, one paediatrician cannot make an ethical stand. As a paediatrician, among those who strongly disliked and discouraged any kind of supplements, pointed out in a personal interview, "I may discourage them, refuse to advocate them. But they don't need a prescription; and there are any number of other doctors who will lead (young athletes) to (these drugs)."(5)

Moreover, children in any kind of athletic activity are positively encouraged to use 'harmless' over-the-counter supplements. This creates a mindset that enhancing performance in sports through the use of drugs is perfectly acceptable, as long as it has no immediate impact on health. Once they start on this first stage of PED use, why not others? Who is to tell them differently? Is it not the ethical responsibility of doctors and pharmacists to discourage this use and educate parents and children about the fact that this is misuse?

The easy way out is to point to the fact that monitoring ethical training and drug use is in the realm of sports authorities. Unfortunately, and increasingly, the medical profession, and not just sports practitioners, is touched by what happens in the sports field. Hospitals and doctors are important points of reference to anyone who is into sports and it is here that they may learn the difference between safe supplements and unsafe PEDs. It is here that they come to resolve the problems that these drugs or training regimes might cause. So it is here that they are most in need of ethical, sound and well-grounded advice.

This note has more questions than answers. But it is high time that these questions were discussed. The lack of some kind of monitoring and education on the use of PEDs may be harming a whole generation of sportspeople, both competitive and recreational sports enthusiasts and practitioners. As Sigman points out, "the unidentified and unquantified yet prevalent use of PEDs and other doping methods has changed the way in which we understand elite human achievement and how we relate to that, and it has changed us for the worse."(1). Running down that track, shooting a goal, or batting a sixer are hugely exciting; but we need to restore a balance with an ethics check perhaps to make it accessible and safe for all.

***Note:** *There is however, a surprising amount of debate on why PED use should be banned in sports. Several authors argue that there is no substantial ethical reasoning for banning PEDs. A critical review of anti doping (Kayser, Mauron and Miah 2007) finds*

"The ethical foundation of the war on doping consists of largely unsubstantiated assumptions about fairness in sports and the concept of a "level playing field". Moreover, it relies on dubious claims about the protection of an athlete's health and the value of the essentialist view that sports achievements reflect natural capacities. In addition, costly anti doping efforts in elite competitive sports concern only a small fraction of the population."

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