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Priyajeet Mohapatra
Ph.D. Research Scholar,
Chaudhary Charan Singh
University, Meerut, Uttar
Pradesh, India

Dr. Rajasakaran C
Guide, Chaudhary Charan
Singh University, Meerut,
Uttar Pradesh, India

Drugs and doping in sports: A menace to fair play and athlete safety

Priyajeet Mohapatra and Dr. Rajasakaran C

Abstract

The use of drugs and doping in sports has become a pervasive and concerning issue, threatening the integrity and fairness of athletic competition. This research paper aims to provide a comprehensive overview of drugs and doping practices in sports, including the historical context, types of drugs commonly used, their effects on athletes' performance and health, the detection and prevention methods employed by anti-doping agencies, and the ethical and legal implications. The paper also explores the reasons behind athletes resorting to doping, the impact on the reputation of sports, and the measures taken by sporting organizations and governing bodies to curb this menace. By shedding light on the complexities of drugs and doping in sports, this paper advocates for a collective effort to preserve the spirit of fair play and ensure the well-being of athletes.

Keywords: Drugs, doping, sports, performance-enhancing substances, anti-doping agencies, ethics, fairness

Introduction

Sports have long been a symbol of discipline, dedication, and the pursuit of excellence. Athletes push their physical and mental limits to achieve greatness, inspiring millions around the world. However, amidst the glory of athletic achievements, the use of drugs and doping has emerged as a formidable challenge, threatening the very essence of fair competition and jeopardizing the health of athletes.

Drug use and doping in sports have a long and contentious history. The allure of improved performance and the desire for success have led some athletes to resort to unethical means, compromising the values that sports stand for. Performance-enhancing drugs (PEDs), stimulants, diuretics, and other substances have found their way into the sporting world, raising concerns about the integrity and credibility of competitions.

A doping scandal rocked the games. The Olympic athlete, a symbol of purity, sportsmanship and human endeavour, stooped to deceit in his quest for gold, bringing shame to the games.

Instead of pure strength, stamina, speed and sheer determination, anabolic steroids, diuretics, beta-blockers, amphetamines etc. propelled some athletes to fame, but a ruthlessly efficient I^{OC} (International Olympic Committee) Medical Commission through urine analysis detected evidence of these banned drugs thus disqualifying these athletes.

Since then the sports pages of newspapers all over the world read like scandal sheets. Sports fans and enthusiasts could not fully and clearly comprehend the magnitude of the dope scandal, the moral and ethical issues of doping in sports and what dope was all about.

For an insight into edope, Sports has for its readers this article on drugs and doping in sports.

Doping in sports has been defined as the administration or use by an athlete of any agent foreign to the body, introduced by whatever means or route, with the sole objective of increasing artificially and in an unfair manner, his performance before or during competition.

Many types of drugs have been used in attempts to improve performance. Injuries and even deaths have occurred as a result of taking some of these drugs. Although some drugs have been found in a few studies to have possibly aided performance, drug-taking without adequate training will normally not result in improved performance. To reduce the incidence of drug taking, most international sporting organisations eg. International Olympic Committee (IOC), have implemented dope testing for drugs. Dope testing usually involves

Correspondence

Priyajeet Mohapatra
Ph.D. Research Scholar,
Chaudhary Charan Singh
University, Meerut, Uttar
Pradesh, India

taking of urine samples which are tested for traces of drugs banned by the IOC. Two drugs commonly used in attempts to improve performance are amphetamines and anabolic steroids.

Amphetamines also known as “speed”

Whether amphetamines actually improve performance is not known, as studies done using amphetamines have yielded conflicting results. The athlete on amphetamines have yielded conflicting results. The athlete on amphetamines would often feel he had done better, but actual measurements usually indicate otherwise. Amphetamines do not retard or reduce fatigue, but reduce the feeling of fatigue.

In complex action sports and situations, performance may deteriorate as amphetamines affect judgement and impair co-ordination. The athletes may become hostile and aggressive and show confusion and poor judgement. The dangers of using amphetamines include:

- Addiction to amphetamines
- Overdose leading to death
- Heat stroke and other injuries which may occur because of impaired judgement.

Anabolic steroids

- These drugs have been found to possibly help in muscle building and strengthening, by helping the tissues recover from training stresses faster and therefore allowing greater training loads. However, without adequate training, anabolic steroids will not help to improve performance. Though found helpful, anabolic steroids are dangerous drugs with side effects which include.
- Sterility
- Masculinity in females
- Liver damage
- Premature closure of bony epiphyses (especially in those under 18 years of age)
- Resulting in stunting of growth.
- Cancer
- Increased risk of injury to ligaments and tendons due to too rapid increases in
- Muscle strength.

Doping classes, doping methods and restricted drugs

The following is the list of doping classes, doping methods and restricted drugs drawn up by the International Olympic Committee (IOC) Medical Commission for the 1988 Olympic Games to combat doping. List of doping classes:

- Stimulants
- Narcotics
- Anabolic Steroids
- Beta-blockers
- Diuretics

List of doping methods.

- Blood doping
- Physical manipulation

Classes of drugs subject to certain restrictions.

- Alcohol
- Local anaesthetics
- Corticosteroids

Notes

The doping definition of the IOC Medical Commission is based on the banning of classes of pharmacological agents. The definition has the advantage that new drugs, some of which may be specially designed for doping purposes, are also automatically banned without the actual drug having to be named, as long as they fall into any of the classes of banned drugs.

Blood doping

Blood doping is the administration of blood or related red blood products to an athlete other than for legitimate medical treatment. This procedure received a fair amount of publicity during the 1976 Montreal Olympic Games, when some middle and long distance runners were alleged to have used this procedure to improve their performances. In this procedure, the athlete's red blood cells which have been withdrawn about a month before, are re-infused a few days before competition into the same athlete who has continued with his normal training.

The additional haemoglobin re-infused immediately increases the oxygen transport capabilities of the athlete with resultant improvement in cardio-respiratory endurance performance. However, this effect is only temporary because the athlete's haemoglobin content will revert to its pre-infused level within a few weeks.

This procedure contravenes the ethics of medicine and of sport. There are also risks involved in the transfusion of blood and related blood products. These include:

- The development of allergic reactions (eg. rash, fever)
- Acute haemolytic reaction with kidney damage if incorrectly typed blood is used.
- Delayed transfusion reaction resulting in fever and jaundice.
- Transmission of infectious diseases (eg. viral hepatitis and AIDS).
- Overload of the circulation and metabolic shock.
- Therefore, the practice of blood doping in sport is banned by the IOC Medical Commission.

Pharmacological, chemical and physical manipulation

The IOC Medical Commission bans the use of substances and methods which alter the integrity and validity of urine samples used in doping controls. Examples of banned methods are catheterisation, urine substitution and tampering, inhibition of renal excretion (eg. by probenecid and related compounds)

Alcohol

Alcohol is not prohibited. However, breath or blood alcohol levels may be determined at the request of an International Sports Federation.

Local anaesthetics

Injectable local anaesthetics are permitted under the following conditions:

- That procaine, xylocaine, carbocaine, etc. can be used, but not cocaine.
- Only local or intra-articular injections may be administered.
- Only when medically justified. Details including diagnosis, dose and route of administration must be submitted immediately in writing to the IOC Medical Commission.

Corticosteroids

The naturally occurring and synthetic corticosteroids are mainly used as anti-inflammatory drugs which also relieve pain. They influence circulating concentrations of natural corticosteroids in the body. They produce euphoria and side effects such that their medical use, except when used topically, require medical control.

Since 1975, the IOC Medical Commission has attempted to restrict their use during the Olympic Games by requiring a declaration by the team doctors. This is because it had been known that corticosteroids were being used non-therapeutically through the oral intra-muscular and even the intravenous route in some sports. However, the problem was not solved by these restrictions and therefore stronger measures designed not to interfere with the appropriate medical use of these compounds became necessary.

The use of corticosteroids is banned except for topical use (Aural, ophthalmological and dermatological) inhalational therapy (Asthma, allergic rhinitis) and local or intra-articular injections. Any team doctor wishing to administer corticosteroids intra-articularly or locally to a competitor must give written notification to the IOC Medical Commission

Conclusion

The use of drugs and doping in sports is a serious concern that threatens the core principles of fair play and athlete safety. The various types of drugs and doping methods discussed in this research paper highlight the need for stringent measures to safeguard the integrity of sports. Future sections of this paper will explore the consequences of drug use in sports, the detection methods, and the ethical considerations surrounding this complex issue. Addressing this problem requires collective efforts from sports organizations, athletes, coaches, and policymakers to ensure that sports remain a celebration of human potential, hard work, and sportsmanship.

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