

## INTRODUCTION

The problem of drug misuse is one that has concerned governing bodies in sport for nearly three decades. Doping control procedures operate at all the major competitive games and a positive test result tarnishes the name of any athlete identified as having taken illegal substances. In this way the use of drugs for ergogenic purposes becomes an issue of public concern. This is an area where myths and suspicions are far more prevalent than views based on scientific evidence about drug misuse.

The Esteve Foundation's Symposium VII at Sitges, Spain (October 2-5 1996) was focused on the Clinical Pharmacology of Sport and Exercise. It provided a forum for the collation of scientific evidence about links between drugs and exercise. There were also opportunities to describe the biological context in which drugs have an ergogenic or ergolytic consequence, the interactions between drugs and training effects and the risks to health of chronic drug use.

The Symposium was organised into five main parts. The first was concerned with broad aspects of the pharmacology of exercise - the scale of the problem of drug misuse in sport, testing procedures, the imperfections in research designs for conduction scientific investigations, health-related aspects and the contemporary problem of 'overtraining' where sports performers travel 'a bridge too far' in striving to realise their aspirations. Specific health-related topics are followed up in Part 2. These include use of beta-blocking drugs, free radical production during exercise, effects of nicotine and the links between female reproductive hormones, exercise and health.

Exercise performance is itself a complex phenomenon and for this Symposium short-term and endurance performance were considered separately. The analysis of the fatigue process provides a physiological background for appreciating how pharmacological agents and/or nutritional substances might delay fatigue, thereby enhancing performance. Fatigue manifests itself in a different guise in prolonged and endurance performance and so different strategies for boosting performance have been employed. A treatment of the factors limiting endurance performance is incorporated into the discussions of how interventions (either legal or banned) might work.

The final part of the Symposium was concerned with psychomotor performance. Here psychological and behavioural strategies were relevant, in addition to a range of pharmacological agents that influence the functioning of the nervous system.

Each topic was addressed by an expert in the field, invariably with a background of personal research in the area. At the end of each of the five 'parts', a general discussion permitted the integration of views across the individual communications as well as raise specific questions. As the ensuing debates generally required the introduction of new information, the content of the 'discussions' is reproduced within these Proceedings. In this way we trust that the volume is a comprehensive account of the information shared by participants at the Symposium.

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