

MEDICINE AND SPORT

Dr. OZA, of the University of Baroda (India), who wrote the article entitled "Athletes, Doping and Olympism" which was published in Newsletter No. 19, has sent us the following article. We sincerely thank him.



ANTI-DOPING MEASURES IN INDIA

The Maharaja Sayaji Rao University of Baroda sponsored the 30th All India Inter-University Athletics Meeting at Baroda (India) from 27th to 30th December 1969. More than 600 athletes (452 men, 168 women) from 49 Indian Universities participated in this competition.

The decision taken by the Baroda University Board of Sports that the athletes will be subjected to doping tests was communicated to the Universities well in advance.

The 'first few' athletes to take the first two or three places in each discipline were to be examined. And for team sports at least two athletes selected by drawing up lots from each team were to undergo the tests.

But, in view of the letter received from the Assistant Secretary (Sports), Inter-University Board of India and Ceylon, New Delhi I, the athletes were to be subjected then to doping tests in cases of doubt. For he wrote:

"Anti-doping tests are permissible under the international rules but actually, they are not applied even in our national sports meetings on a regular basis. In our Inter-University Meeting, I am of the opinion that it may not be necessary to subject every athlete to such a test; but in cases of doubt, athletes may be medically examined..."

The news that the athletes were to be subjected to doping tests was appreciated by all the participating Indian Universities. In fact, no one was opposed.

However, during the competition there were no doubt cases for subjecting to doping tests.

I believe that the basic idea that one may be subjected to a doping test is in itself an excellent deterrent against the use of drugs in sport.

The Indian Universities are now becoming aware of the necessity to guard against doping of sportsmen in athletics meetings.

The Committee for Anti-Doping Measures consisted of the following personnel for general organisation:

- Dr. G.M OZA, (Convener), Lecturer in Biological Sciences
- Dr. P.T. ACHARYA, (Head of the Medical Team), Professor of Clinical Chemistry
- Dr. N.B. VASAVADA, Lecturer in Bio-Chemistry
- Dr. J.K DESAI, Jr. Lecturer in Pathology
- Mr. S.C. PARIKH, Bio-Chemist
- Dr. U.A. VAIDYA, Physician of the University Health Centre
- Mr. Amul C. MUNSHI, (Receptionist), Medical Student
- Miss A.M. PATEL, (Receptionist), Medical Student

The Committee was concerned basically with the use of:

- a) Amphetamine, ephedrine and similar products
- b) Stimulants affecting the central nervous system such as strychnine, as well as analeptics and similar substances
- c) Analgesic narcotics such as morphine, methadine and similar substances

The arrangements made for the methods and scientific means to conduct the tests, for the first time in the history of Indian Athletics, were conducted in accordance with the Grenoble and Mexico Reports of the Medical Commission of the International Olympic Committee.

We wish to have the Anti-Doping measures with a view to safeguarding the moral and physical health of the athletes from the Indian Universities.

Ultimately, this will safeguard sport's aims - strength, health and purity.

SEX TESTS

I suggest that in addition to the doping tests, the Indian Universities should also undertake tests for determining the sex of athletes. All female athletes will then have to undergo checks before taking part in the competition.

I consider this a complex subject. And to avoid any risks of affront to the human dignity, the Universities will have to observe strict medical secrecy. The sex test may reveal anomaly!

Saliva tests should be used to check on the sex of female competitors and hormone tests should be taken in doubtful cases.

Dr. G.M. OZA

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THE SWISS REVIEW OF SPORTS MEDICINE

(No. 4 Vol. 17 1969, Editions Médecine et llygiène, Geneva) contains a very interesting article by K. BLATTET and P. IMHOF, entitled: "The role of adrenergic beta receptors in emotional tachycardia; telemetric research on ski jumpers". Here is a résumé:

Heart rate measurements with the aid of a radio-telemetric system in nine experienced ski jumpers revealed the presence of tachycardia due purely to physical effort during climbing and purely to emotional stress when the athlete was waiting on the platform for the starting signal. The highest heart rate, which is attributable to the liberation of catecholamines during the jump, was recorded 15 sec. after landing. Mean heart rate varied in the course of the jumping procedure, including the climb to the platform, between 110.0 ± 2.9 and 145.8 ± 1.3 beats/min. There were hardly any values below 100 beats/min. Trasacor (R), a specific beta-receptor blocking agent, diminished effort tachycardia by 15.0% and emotional tachycardia by 34.2%. From this, it is concluded that emotional stress is predominantly mediated by adrenergic beta receptors.

Also published was a more general but very noteworthy article by P.D.Dr. E. MORSCHER, entitled "The vertebral column and sport amongst young people", a summary of which follows:

1. For the optimal development of the vertebral column, a normal development of the muscular system, especially of the back muscles, is presumed. Muscle insufficiency leads to poor posture. However, a poor posture is only slightly influenced by general conditioning and requires a well planned program of back exercises where these possibilities are obviously limited. In contrast, a too well developed muscular system can likewise lead to vertebral column damage as seen in Scheuermann's disease. Static muscle work, as seen today in the form of isometric exercises which are favourites of young people, must be classified as especially harmful. The young person, as is well known, is engaged far more in dynamic muscular work than in static.
2. Not every development phase which a child or young person passes through is uniformly dangerous. An

especially critical period is the time of puberty, specifically the first half. The beginning and the course of puberty is, here again, not a question of chronological age or, in other words, not a question of one's school grade, but on the contrary is a function of one's biological development.

3. Top performance sport has special dangers; but this limits, itself on the other hand, to a small number of people. For these reasons, I think it is necessary and should be noted that young people who are ready to participate in specific sports training should undergo a physical examination and x-ray of back and this should be followed up with a physical examination and back x-ray at regular interval. Generally a complete strength-building program should not be initiated until the end of puberty when the epiphyses close under the influence of sexual hormones and when the muscle strength obtains its complete maturity.

THE FEDERATION INTERNATIONALE DE NATATION AMATEUR

in its January edition, Number 36, recounts its first International Medical-Scientific Conference, organized in London on 8th to 10th May 1969 and during which 26 reports were presented by scientists and doctors who specialize in sport from 4 continents and 13 countries (Algeria, Great Britain, D.R. Germany, F.R. Germany, Spain, Ireland, Poland Rumania, U.S.S.R., Finland, U.S.A., Czechoslovakia).

This conference:

(i) considered different forms and methods of scientific research used in different countries (see report by Prof. JOKL, U.S.A.; Mr. KOROBKOV, U.S.S.R. Mr. SCOUTAN, Great-Britain; Mr. ROUS, Czechoslovakia; Mrs. DIETRICH, G.D.R.; Mr. DROGAN, Rumania, and some others);

(ii) gave an opportunity to exchange of experience, gained by sport doctors in many countries at their practice of using new means and methods of medical control of training swimmers (such as functional probing using speed swimming; exploitation of cardio-telemetric instruments displaying at screen functioning of heart; gas ergometric control; phono-electro-cardiographic control of heart adaptation, etc...);

(iii) decided that modern training load used for children training is not harmful (provided systematic and successive increase in training scale), but on the contrary it does strengthen health and physical condition of the children. Such was a unanimous decision expressed in reports from different countries;

(iv) find out that violation of medico-sanitary requirements concerning exploitation of swimming pools, or some deficiency in swimming pool construction leads to specific diseases of athletes. At the same time, under appropriate medico-sanitary conditions, this sport opens new reserves of human resources and abilities, improves his cardiac possibilities (see reports by Prof. JOKL, U.S.A.; Dr. BUTKOV, U.S.S.R.; Dr. AVAS, Great Britain), prevents gripe and some other diseases (see report by Dr. BLEASDALE, Great Britain);

(V) came to conclusion (upon the results of reports by Prof. JOKL, U.S.A.) that those 26 swimmers' collapses which took place during last Olympic Games were not lethally dangerous and they resulted from insufficient "training" of the swimmers' circulatory system, which failed under specific Mexican conditions (high altitude).

All the participants of the Conference unanimously decided that it is necessary to publish all the reports in the form of a special edition of the F.I.N.A. Medical Committee, and to start to work out special instructions on the medical and sanitary aspects of swimming sports and in future organize such conferences systematically; the Conference participants expressed their high appreciation of very kind assistance of the ASA in organizing this London Conference".

The Second Medico-Scientific Conference in Ireland 1970 is approved at no cost to the F.I.N.A., and providing a budget is presented for this Conference, showing the balance of the credit from the First Conference and complete summaries of that Conference.