NORTH WEST REGION OF BASM

The inaugural meeting of the North West Region on Wednesday, 23rd April, 1986 at the Bury Postgraduate Medical Institute was attended by 83 members. The meeting was arranged through the good offices of Mr. A. J. C. Carroll of the regional Sports Council.

A Ciba Geigy video on knee injuries was shown and short talks were given by Mr. Carroll, Mr. J. C. Lowry and Miss L. Booth. Those in attendance agreed that the existing steering group continue to represent the regional association for the moment. The members of the group are Miss Booth, Mr. J. Sinclair, Dr. M. A. Moore, Mr. A. Banks, Mr. D. McKechnie, Mr. J. Lowry and Mr. P. L. Foxcroft (Chairman). A further meeting is planned for Monday, 23rd June in St. Helens. Future meetings will be on 16th/17th September (University of Manchester Institute of Science and Technology, in conjunction with The Society of Community Medicine), November 20th (Liverpool) and 27th January, 1987 (Hope Hospital, Salford).

P. L. Foxcroft

CORRESPONDENCE

Dept. of Anaesthetics,
Princess Margaret Rose Hospital,
Fairmilehead,
Edinburgh

To the Editor:

Dear Sir,

Dr. R. J. Maughan et al (Br.J.Sports Med. 1985 **19**: 192-5) claim that in marathons in cool climates hypothermia is potentially more of a problem than hyperthermia. However, whatever the numbers of cases of each may be, hyperthermia is potentially more dangerous than hypothermia. In hypothermia immediate treatment is relatively easy, i.e. to get the person into shelter and provide extra clothing, and any fit athlete will then rewarm spontaneously without any sequelae. On the other hand, if hyperthermia progresses to heatstroke, there is potential danger, including renal failure and brain damage, or death, unless the correct treatment is started promptly (Khogali and Hales, 1983).

Despite the Dundee marathon being held in cool weather with a moderate wind, none of the 62 mixed ability runners measured had core temperatures in the hypothermia range, i.e. below 35°C. The runner with the rectal temperature of 33.4°C was certainly hypothermic. However if he had to stop at 22 km because of severe fatigue he was obviously not very fit. With the cold weather and lack of clothing, that runner would still need a high rate of energy production and oxygen consumption to try and maintain his body temperature (Lloyd, 1986). The oxygen consumption and energy production may not have been much less than that required to keep running and this would aggravate the fatigue so that his state of collapse was probably more due to sheer exhaustion than to hypothermia.

The case reported by Ledingham et al (1982) certainly had a rectal temperature in the hypothermic range but the 34.3°C was probably the result of the afterdrop which can be present in the rectum though absent at the cardiac site (Golden, 1979; Hayward et al, 1984). In addition 34.3°C is not a temperature which by itself should have caused death. Death was more likely to have been due to excess circulating catecholamines resulting from a combination of exercise, fatigue, cold stress and the excitement of the closing stages of the race (Lloyd, 1986).

For marathon runners the hazard from cold may be greater from the contribution of cold to catecholamine secretion than from hypothermia per se.

Yours faithfully,

E. L. LLOYD, FRCPE, FFARCS

References

Golden, F. St. C., 1979 "Why rewarm?" In P. Matter, P. Braun, M. deQuervain, W. Good (Eds.) Skifahren und Sicherheit III. Buchdruckerei Davos AG. Davos pp. 163-7.

Hayward, J. S., Eckerson, J. D. and Kemna, D., 1984 "Thermal and cardiovascular changes during three methods of rewarming from mild hypothermia". Resuscitation 11: 21-33.

Khogali, M., Hales, J. R. S. (Eds.), 1983. Heat Stroke and Temperature Regulation. Academic Press, London.

Ledingham, I. McA., MacVicar, S., Watt, I., Weston, G. A., 1982 "Early resuscitation after marathon collapse". Lancet ii: 1096-7.

Lloyd, E. L., 1986. Hypothermia and Cold Stress. Croom Helm, London.

CORRESPONDENCE

Dept. of Environmental and
Occupational Medicine,
University of Aberdeen

To the Editor:

Dear Madam,

Dr. Lloyd's letter raises some interesting points in relation to disorders of temperature regulation in marathon runners. Although many people would agree with him that the management of hyperthermia in these individuals may be more difficult than that of hypothermia, this is not necessarily true in the field situation. The primary aim of our paper to which he refers, however, was to draw attention to the fact that the incidence of hypothermia may be higher than has previously been recognised. The possibility of hypothermia has been largely ignored in the extensive literature on marathon running, and medical teams at races may not measure body temperature before initiating treatment. In the case of the runner who collapsed during the Dundee Marathon, procedures appropriate to the treatment of hyperthermia were about to begin when we measured his rectal temperature. Exhaustion alone could not account for the state of this individual.

It may also be dangerous to assume that participants in marathon races are "fit athletes". It is now widely recognised that many entrants for such events have little training experience, and those who complete the distance in times of 4, 5, or even 6 hours can hardly be described as athletes. Some of these individuals will inevitably also be unfit in the "medical" as well as the "athletic" sense.

Dr. Lloyd's suggestion that the need to maintain body temperature can increase metabolic rate to the point where it is similar to that during running surely is not relevant to the fatigued man. I should be most interested to learn of the mechanisms which might make this possible.

Yours sincerely,

Dr. R. J. MAUGHAN