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To the Editor,  

GENES OF SICKLE CELL DISEASE

Dear Sir,

Regarding your review of Genetic and Anthropological Studies of Olympic Athletes by de Garay, Levine and Carter in B.J.S.M., Vol. 11, No. 3, September 1977, I would like to clarify your comments about sickle cell disease. There is no surprise in finding negro athletes having the HbAS phenotype although it would be more correct to use the word genotype. The subject of sickle cell disease has caused much confusion but has been comprehensively and lucidly reviewed by Konotey-Anulu in Archives of Internal Medicine, April 1974, Volume 133 and this article has been reprinted in Medicine digest, June and July 1975.

It is important to be clear about terminology when dealing with this subject. Sickle cell anaemia should only be used to describe those patients who carry two abnormal genes responsible for the formation of Haemoglobin S. They are thus homozygous SS and being permanently anaemic with fluctuating Hb levels which rarely reach 70%, they are unlikely to figure among the leaders of athletic endeavour.

Sickle cell disease involves the possession of two abnormal genes related to haemoglobin formation at least one of which is the sickle cell gene. This definition includes sickle cell anaemia but also includes other states which are not, such as HbSC and Hb S Thal and which are generally less severe than sickle cell anaemia (HbSS).

Sickle cell trait is used to describe a person who has inherited one normal haemoglobin gene (A) from one parent and one abnormal gene (S) from the other parent. Such a patient has the genotype AS and does not belong to the sickle cell disease group.

Individuals with sickle cell trait rarely suffer from it, except for a few who have reduced renal concentrating power (hyposthenuria) and haematuria. It is, therefore, no surprise that the individuals referred to in the review who had sickle cell trait were able to complete successfully and win medals in the Mexico Olympic games.

Yours sincerely,

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Surgeon, RCM Luanshya  
Honorary Team Physician – Roan United Football Club

I stand corrected, and am grateful to Mr. Buchanan for these comments. — Editor

NEWS OF MEMBERS

SPORTS MEDICINE UNIT — ADDENBROOKES’S HOSPITAL, CAMBRIDGE

We learn from notices in the British Medical Journal — April 29th, 1978, and the Lancet, that a sports medicine unit is established at the Addenbrookes’s Hospital, under the direction of Dr. Sylvia Lachmann, who has been awarded a Sports Medicine Fellowship by the Institute of Sports Medicine at New Hall, and we send her our congratulations and best wishes. The physiotherapist for this unit is Mrs. Jeanne Jones, M.C.S.P., whom we were delighted to welcome as a student on the B.A.S.M.’s Sports Medicine Course at Loughborough University early this April.
Genes of sickle cell disease.

D. J. Buchanan

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