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KWASHIORKOR — A NOTIFIABLE DISEASE

As announced in the *Government Gazette* of 14 September 1962 and reported in the *Journal*,[1] kwashiorkor has now become a notifiable disease. This important and far-reaching step gives an official stamp of approval to the concept that disorders of nutrition are preventable and that it is in the public health interest to control, and if possible eradicate, such disorders from the community. The Department of Health and the Minister are to be congratulated on their leadership in this matter, which puts the Republic far in advance of other countries which have similar nutritional problems.

Kwashiorkor has been described as 'the most serious and widespread nutritional disorder known to medical and nutritional science'.[2] It occurs throughout Africa, Central and South America, the Middle East and Far East. Its incidence in the Republic is high in all four Provinces. Now that it is notifiable we shall soon learn how high it actually is and thus be better able to control it effectively. Accurate notification imposes a responsibility on the practitioner, who should be familiar with the diagnostic criteria.[1,3-5] The disease occurs predominantly in the pre-school child aged 1 - 4 years, though no age in childhood is immune.

There are three basic clinical signs which must be present to make a diagnosis: (1) Underweight for age (this entails a knowledge of the expected weight for a given age); (2) oedema; (3) apathy and irritability. The other signs of the disease such as skin lesions and hair changes are pathognomonic when present, but are not essential for a diagnosis. Fundamentally, kwashiorkor is due to a deficiency of protein. The minimum protein requirement of an infant or pre-school child is 2 G./kg. body weight per day, compared with 0·5 G./kg. body weight in an adult.[6] (One ounce of liquid milk gives 1 G. of protein, whereas it takes 4 ounces of mealie-meal porridge to supply 1 G. of protein). The relatively greater requirement of the child is due to the demand of growth, which is faster in the pre-school period than at any other time of life. Treatment therefore depends on the provision of adequate protein — milk protein being the most efficient in this respect. Deficiency of protein tends to occur because of poverty, ignorance of the need to continue with milk after a baby has been weaned, and too much reliance on unsupplemented basic cereal foods such as mealie-meal and bread.

It is important to realize that kwashiorkor is akin to the visible part of an iceberg, there being a far larger number of children suffering from less severe dietetic deficiency. A recent assessment in a Cape hospital out-patient department revealed that there were 40 cases of malnutrition for every case of kwashiorkor.[7] Notified cases of kwashiorkor will therefore be no more than an index of the incidence of these deficiency diseases.

As pointed out in these columns previously,[8] a fact not generally recognized is that while the infantile mortality rate among non-Europeans is four to six times the rate among European infants, the death rate in the age group 1 - 4 years among the Coloured population is 15 times, and among the Africans 30 times as great as the European death rate at this age. Gastro-enteritis, pneumonia and tuberculosis are leading certified causes of death, and there is no doubt about the importance of the nutritional factor as a contributory cause.[9] In this connection it was recently found that more than 50% of children attending hospital with dehydrating gastro-enteritis had a low serum albumin.[10]

Among immediate measures that should be taken to improve matters are:

1. Better education of doctors, nurses, health visitors and public health personnel in the recognition and treatment of nutritional disease of childhood. In this respect the recent decision of the South African Medical and Dental Council to remove paediatrics from the compulsory intern year might be viewed as a retrogressive step in view of the special child health problem that afflicts this country.

2. Encouragement of milk subsidies for pre-school children by local authorities and other agencies. The recent decision taken by the central Government to subsidize milk in certain areas is a positive step in the right direction. This scheme should be extended to other areas where needed. Notification of kwashiorkor will help to define these areas.

3. More extensive education of the public on essentials of good nutrition.

4. Encouragement by doctors of every attempt that is made to alleviate poverty and improve the difficult socio-economic conditions that have arisen as a result of the current industrial revolution in South Africa.

Our country is fortunate in possessing established welfare and medical services and many dedicated people of great ability. With proper coordination and organized effort it should be possible to make the Republic the first kwashiorkor-free area in Africa. Can our medical profession meet this challenge?

The first step towards that end is for all doctors to notify all the cases of kwashiorkor met in the course of their work. The notification itself will do little except help to focus attention on the problem, its location, and its size. There are no statistics at present on which any authority, governmental or provincial, can base its case for a financial or other appropriation. Someone must start the ball rolling. In this instance it is our privilege. We must see that we do not fail.

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2. Brock, J. F. and Autret, M. (1952): *Kwashiorkor in Africa*. Memograph Ser. 8. Geneva: WHO.
3. Pretorius, P. J. (1962): Geneeskunde, **4**, 25.
4. Trowell, H. C., Davies, J. N. P. and Dean, R. F. A. (1954): *Kwashiorkor in Africa*. London: Arnold.
5. Hansen, J. D. L. *in* Brock, J. F. ed (1961): *Recent Advances in Human Nutrition*, p. 267. London: Churchill.
6. FAO Nutritional Studies No. 16. (1957): *Protein Requirements*. Rome: FAO.
7. Wittmann, W. and Ford, F. J. Personal communication.
8. Editorial (1960): S.Afr. Med. J., **34**, 337.
9. Robertson, I., Hansen, J. D. L. and Moodie, A. (1960): *Ibid.*, **34**, 338.
10. Truswell, A. S., Hansen, J. D L., Freesemann, C. and Schmidt, F. (1962): *In press*.

KULTURELE ASPEKTE VAN DIE MEDISYNE

Gedurende die laaste aantal jare het die belangstelling in die geskiedenis van die medisyne en in die breëre kulturele aspekte van die mediese wetenskap dwarsoor die wêreld toegeneem. Dit is egter 'n belangstelling wat nie sommer toevallig of as 'n ‚mode' ontstaan het nie, maar wat spruit uit die wesenlike behoefte by alle ‚denkende' geneeshere om toe te sien dat geen een van die beskawingswaardes van die verlede verlore gaan nie.

Enersyds het die grotere en meerdere tendens tot spesialisasie die geneeshere as groep onderling verdeel en uitmekaar gedryf. Aan hierdie tendens self is daar nie baie wat ons kan doen nie. Dit lê in die aard en omvang van die huidige wetenskaplike kennis dat niemand meer 'n omvattende insig in en kennis van alles kan hê nie. Dit is die wetenskaplike idioom van ons tyd.

As hierdie tendens tot spesialisasie egter onomkeerbaar is, is dit nogtans nie nodig dat ons lewens moet verarm aan werklike geestesinhoud nie. Vandaar die pogings om die penne van ons belangstelling en geestelike aktiwiteit verder en wyer uit te slaan.

In 'n poging om die skoonheid en die romanse van die medisyne te beklemtoon en om elke individuele geneesheer te inspireer tot 'n poging om sy eie lewe, soos dié van die groot geneeshere van die verlede en die hede, só te rekonstrueer dat die beste fasette van sy persoonlikheid as wetenskaplike, as lid van 'n gemeenskap en as mens op die voorgrond tree, het dr. Felix Marti-Ibañez, redakteur van die tydskrif *MD*, 'n pragboek oor *The Epic of Medicine* die lig laat sien.[1]

Die gedagte aan hierdie boek het ontstaan uit die begeerte van dr. Marti-Ibañez om deur middel van sy tydskrif te help om sy lesers in staat te stel om hul ‚innerlike ruimte' — hul gees — te verruim om sodoende in staat te kan wees om te kompenseer vir die gevare en bedreiginge wat daar in die uiterlike ruimte om die mens vandag skuil. Die boek bestaan dan ook uit 'n aantal geïllustreerde artikels wat deur kunstenaars en wetenskaplikes op alle gebiede op so 'n manier saamgestel is dat dit die geskiedenis van die medisyne dek teen die agtergrond van die maatskaplike strominge van die betrokke tydperke en ook teen die agtergrond van die geesteswetenskappe en die beeldende kunste.

The Epic of Medicine beskryf die eerste ontwaking van mediese ‚bewyssyn' in die magies-georienteerde sjamane van die primitiewe wêreld; die stryd tussen priestergeneeshere en die demone van siekte in Mesopotamië en Egipte; die gedagtevlugte van die filosoof-geneeshere tussen die harmoniese geometriese suile en wit marmer in die ou Griekeland; die mediese praktyk van die slawegeneeshere in die burokratiese, militaristiese keiserlike Rome; die monumentale samestelling van mediese werke deur geneeshere agter die mure van Bisantium; die prestasies in alchemie en die higiëne van die Arabiese hakims in die Bagdad-tot-Cordova Ryk wat geskep is deur die kromswaarde van Islam; die geboorte in die sogenaamde ‚donker' eeue van die eerste hospitale en universiteite, asook van Gotiese katedrale en Dante se *Divina Commedia* — wat hierdie tydvak uit een van duisterheid tot luisterryke glorie omskep het; die studie van die menslike liggaam deur die kunstenaar-geneeshere van die Renaissance; die ontdekking van die sirkulasie van die bloed en die begin van wetenskaplike navorsing gedurende die Baroktyd — 'n tydperk wat gekenmerk was deur beweging en emosie in die kuns; die ontstaan van die vorige eeu se naturalistiese en positiwistiese medisyne; die oorgang van die kwalitatiewe tot die kwantitatiewe benadering in die medisyne, wat gelei het tot die nuwe psigiatrie, antibiotiese medisyne, ruimte-medisyne en wat besig is om te lei tot biochemiese, fisiese, en miskien weer eens filosofiese medisyne.

The Epic of Medicine is dus 'n boek waarin die tafereel van die groot tydvakke in die medisyne afgespeel word teen die agtergrond van die algemene patroon van die beskawing: die vooruitgang van die kunste en die wetenskappe, die botsing van leërs, die verdwyning van koninkryke, die geboorte van nasies en die ontdekking van nuwe wêrelde. Elke geneesheer wat op die benaming van 'n beskaafde mens aanspraak maak, moet dié boek besit.

1. Marti-Ibañez, F. (1962): *The Epic of Medicine*. New York: Clarkson N. Potter, Inc.