

EDITORIAL : VAN DIE REDAKSIE

DIETETICS AND NUTRITION

There is a rapid awakening throughout the civilized world to the profound influence of correct nutrition on the human mind and body.

The importance of dietetics in medical treatment is recognized by most doctors and is assuming its proper role in the positive and effective cure of illness. Because of this interest in dietetics we intend publishing a series of special diets, including a summary of the rationale of each diet. The first article in this series will be found on page 684 of this issue of the *Journal*, and further articles will appear from time to time during the next few months. It is hoped that these diets, which were compiled by the dietitian at Groote Schuur Hospital, Cape Town, with the advice of many of the consultants there, will be of interest and assistance to readers of the *Journal*. In all cases, the need for a practical regime, which can easily be put into use by doctors, has been borne in mind in compiling the diets. With particular reference to the practical requirements of therapeutic diets, attention will be drawn to subjects such as the modification of calories, fats, sodium, and protein; and less frequently used diets, such as the gluten-free diet, will be discussed as well.

Apart from therapeutic dietetics, the practitioner needs to know about other fields of nutrition and the ways in which he may be required to assist his patients. While the details of everyday feeding are seldom regarded as the responsibility of the doctor, he is nevertheless called on to give general nutritional guidance in combating the appalling amount of malnutrition resulting from social customs, environment, poverty, ignorance and slum living.

Malnutrition is widespread among the poor and ignorant of all ages. Subclinical symptoms of kwashiorkor are rife in babies and infants, and for each child diagnosed as having kwashiorkor, there are dozens of others who are underdeveloped and below weight for age because of an inadequate food intake. Africans who survive their critical infant years and reach adulthood often work in the cities and are accommodated in 'bachelor quarters'. They return to these hostels in the late afternoon or evening and must then, after a tiring day of manual labour, purchase and prepare their main meal—a state of affairs conducive to malnutrition.

Poverty is another factor of profound importance. Recent investigations have shown a close relationship between poverty and infantile gastro-enteritis.

Although environmental improvement and economic aid cannot be regarded as being within the purview of medical practitioners, much can be done by the family doctor to improve unsatisfactory dietary patterns and to help patients to understand basic nutritional requirements.

The inclusion of fish and legumes as economical sources of protein of good quality should be encouraged. Many in the underprivileged classes who have no refrigera-

tion facilities purchase sweetened condensed milk; they could be told that this is more expensive per pint of reconstituted milk than skimmed-milk powder. Patients could also be told that, per unit of cost, carrots are nutritionally superior to squash and pumpkin; furthermore, that by eating potatoes instead of rice the ascorbic-acid intake would be considerably improved.

The doctor could also play an important role in dispelling food fallacies and malpractices that are so prevalent among housewives. It is unfortunate that the homemaker, who has the responsibility of preparing most of the food for consumption, is so often misinformed and unenlightened with regard to feeding and cookery practices. Foods which are good sources of ascorbic acid are frequently chopped and sliced into small pieces and then allowed to stand for hours before they are consumed. Vast quantities of this relatively unstable vitamin are lost in this way, whereas hardly any loss would have occurred if these foods had been left intact until immediately before consumption.

Many people also believe that processing reduces much of the nutritive value of food and they therefore purchase fresh fruit and vegetables in preference to canned or frozen commodities. They ignore the fact that fresh vegetables are frequently transported and held at markets for long periods, in which case they can become nutritionally inferior to canned or frozen products, which are usually processed soon after harvesting.

Charitable organizations engaged in school-feeding schemes often need reminding that warm food *per se* is not necessarily more nutritious than cold food, and that a glass of skimmed milk and a slice of bread and peanut butter contain more proteins than a plate of vegetable soup. The cost and the work involved in preparation are also usually less.

Although the problems of insufficient intake of nutrients, some of which we have outlined above, are vast and complex, those at the other end of the scale, namely those associated with overfeeding, also call for urgent attention. These often shorten the lives of experienced leaders of commerce and industry who form the lifeblood of our economy.

While on the one hand millions are hungry from poverty and ignorance, many others are trying to reduce dangerous overweight.

The hazards of obesity are varied and are associated with such diverse disorders as diabetes, osteo-arthritis, gallbladder disease, and embarrassment of the heart or lungs. Statistics have clearly indicated that life expectancy is shortened in the obese. Coronary atherosclerosis and thrombosis are associated with overfeeding.

Enormous sums of money are wasted by the well-to-do on so-called slimming pills, gimmicks and gadgets, while elementary diet therapy is frequently all that is required.

However, unless the necessary diets are acceptable to the patient on a long-term basis, the recommendation of dietary restriction is of little value.

The enjoyment of food must not be impaired if the cooperation of the patient is to be secured. When each meal has to be planned and cooked separately, the pleasure of cooking and eating are lost—and often the patient too!

When a modified intake of food is necessary, a regime composed of ordinary foods which are easily and economically available is usually the most practical. Patients are seldom interested in the weight of protein or the quantity of calories permitted. In practice, it is more advisable to

specify the permitted foods in ordinary household portions.

Although the role of dietetics is vital and diverse, it is the practical application of diets to disease which is of prime importance to the doctor. The diets to be published in the *Journal* are thus directed to this specific purpose. This series of dietetics supersedes the booklet entitled *Standard Hospital Diets in use at the Groote Schuur Hospital*, edited by the late Dr. Louis Mirvish as far back as 1942. That book served a most useful purpose in its day, but the need for revision and expansion on the basis of further research and experience has long been felt to be overdue. We are pleased to be able to present the results of this revision and expansion to our readers.

DIE BEVOLKING VAN TRISTAN DA CUNHA: GENEESKUNDIGE ASPEKTE

Op Tristan da Cunha woon 268 mense wat *via* Kaapstad *in toto* na Engeland verplaas is toe die vulkaan op hierdie geïsoleerde eiland op 8 Oktober 1961 uitgebars het. As ons gaste, voor hulle vertrek na Engeland, het ons deur middel van die pers en draadloos met hulle kennis gemaak.

Geïsoleerde gemeenskappe is 'n vrugbare studieveld vir die geneeskunde, en veral vir genetiese studies. Soos dan ook blyk uit die besprekings op 'n simposium in Londen, is deeglik gebruik gemaak van die geleentheid tydens die Tristanese se verblyf in Engeland.¹⁻⁴

Die eiland is in 1506 deur die Portugese admiraal met dieselfde naam ontdek. St. Helena, 1,500 myl noordwaarts, is die naaste bewoonde eiland, en Suid-Afrika en Suid-Amerika is omtrent ewe ver van Tristan da Cunha. Met die verbanning van Napoleon na St. Helena in 1816, het Engeland die eiland beset en 'n garnisoen uit die Kaap is daar gestasioneer om die suidelike toegang tot St. Helena te bewaak.

Ná die ontbinding van die garnisoen het korporaal William Glass en sy Kaapse Kleurlingvrou, Lena, soos Adam en Eva op die eiland agtergebly. Hulle geledere is versterk deur twee Engelse mans en drie Kleurlingvroue van St. Helena—laasgenoemde synde twee susters en 'n dogter van een van die susters. Teen 1849 het 'n Hollander en twee Amerikaners bygekome, en 'n vrou van St. Helena in 1863. In 1892 het twee Italiaanse skipbreukelinge bygekome en in 1908 twee Anglo-Ierse vroue-immigrante. Al die huidige Tristanese is afstammeling van hierdie 15 voorouers, en aangesien die drie St. Helena vroue van 1826 naverwante was, is die gevolge van ondertrouery verder beklemtoon. Onder die 268 mense, wat 70 families behels, is slegs sewe vanne te vinde.¹

Deur die jare het 'n paar geëmigreer na Suid-Afrika en na Amerika. Die vrugbaarheid was hoog tot 1885, maar het toe afgeneem na 'n rampspoedige visvangs toe 15 mans verdrink het, en slegs sewe mans op die eiland oorgebly het.

Dit was oorspronklik besluit om die klein gemeenskap se fisiologiese norme te peil, maar toe dit blyk dat hulle volgens Britse standaarde in swak gesondheid verkeer, is intensiewe ondersoek (bestaande uit 20 onafhanklike benaderings) deur die Britse Mediese Navorsingsraad aangepak.

Baie van die pertinente geskiedenis van gesondheidstoestande ter plaatse is opgeteken in boeke en aantekeninge

van vorige sendelingsvroue—mev. Barrow (1910) en mev. Rogers (1928)—en dit beklemtoon die wetenskaplike belang van ingeligte lekwaarnemings vir die mediese geskiedskrywer.

'n Parasitologiese ondersoek² toon dat die stoelgange van slegs 17% parasiet-vry was: *Trichuris trichiura* eiers is gevind by 72.2%, *Ascaris lumbricoides* by 23.2%, *Entamoeba histolytica* siste by 11.2%, *E. coli* by 15.4%, *E. hartmanni* by 0.8%, *Giardia lamblia* by 8.5% en *Endolimax nana* by 27.0%. Dit getuig van 'n geslote gemeenskap met ondoeltreffende higiëne.

Toestande het baie verbeter sedert die vorige ondersoek deur Noorweërs in 1937-38, en elke familie beskik oor 'n pygeleide watervoorraad en spoel-sanitasie sedert 1958.

Geen milt-vergroting of bewys van ander tropiese siektes is gevind in die groep nie en asma, waaraan nagenoeg die helfte van die bevolking ly, is oënskynlik nie aan die wurminfestasie toe te skrywe nie.²

Die velpigmentasies wissel tussen lig en donker, maar treffend was die hoë voorkoms van aangebore afwykings. Grootte afwykings het in 48 persone voorgekom.² Oftalmologiese ondersoek het in vier gevalle retinitis pigmentosa getoon wat deur prof. A. Sorsby nagegaan is.³ Dit het gelyk asof dit in 'n te ernstige kliniese graad voorkom om aan 'n resessiewe gene te wyte te wees, maar Sorsby skryf dit toe aan 'n beperking van die wye veld van modifierende faktore wat in 'n minder geslote gemeenskap hierdie gene se manifestasies sou verdun het. In twaalf ander is 'n choroidoretinitis waargeneem met erge atrofie in die sentrum van die letsel.² Hoewel eers as *formes frustes* van retinitis pigmentosa beskou, is bedenkinge geopper toe die moontlikheid van tuberkulose, sarkoidose, sifilis en toksoplasmose oorweeg is. Eersgenoemde drie kon deur kliniese en serologiese ondersoek uitgeskakel word, maar twee was positief teenoor *T. canis* antigeen. Verdere ondersoek toon dat toksoplasmose ook 'n hoë voorkoms het. Hulle is behandel vir die wurminfestasies en dit mag, by hul terugkeer, 'n verdere verbetering in algemene gesondheid beteken.

Virus-siektes is ook bestudeer⁴ en studies van Gear en Winter van die Suid-Afrikaanse Instituut vir Mediese Navorsing ten opsigte van poliomiëlitis (1955) en influensa word genoem. Verdere studies is tydens hulle deurtog deur Kaapstad uitgevoer.

In 1958 het 'n siek matroos van 'n verbygaande skip die hele bevolking (behalwe twee wat toe by Gough-eiland

visgevang het) met masels aangesteek. Aangesien hierdie twee vissers eers ná die herstel van die epidemie teruggekeer het, toon dit dat die masel-virus nie ná kliniese herstel in die stoelgang uitgeskei word nie.

Herpes zoster was in drie bejaarde persone in 1943 gediagnoseer, maar waterpokkies was onbekend op die eiland. Aangesien die grootste deel van die bevolking in 1950 deur waterpokkies platgetrek was, moet aangeneem word dat dit hul eerste kennismaking met die virus was. In dié epidemie het veral die persone oor 25 jaar egter vrygespring en dit is moontlik dat 'n onvermelde epidemie in ± 1920 voorgekom het. Hierdie probleem word verder ondersoek.

Ander interessante punte, net vermeld in die bespreking, is die bevinding van 'n lae albumien, hoë gamma globulien

serum-proteïen patroon soos in die Suid-Afrikaanse Bantoe en Bantoe elders in Afrika gevind word. Dit dui teen malaria en tropiese siektes as die oorsaak van hierdie patroon.

Daar is gevoel dat die Tristanese in groot gevaar van ernstige biologiese gevolge sou staan as hulle nie vars genetiese materiaal vir die toekoms saam terugneem nie.

Die resultate van verdere ondersoeke, wat tans nog voorberei word, en die resultate van opvolgstudies wat oor 'n paar jaar beoog word, sal met belangstelling deur ons in die Republiek, asook deur die hele geneeskundige wêreld, afgewag word.

1. Lewis, H. E. (1963): *Trans. Roy. Soc. Trop. Med. Hyg.*, **57**, 68.
2. Thacker, C. K. (1963): *Ibid.*, **57**, 10.
3. Sorsby, A. (1963): *Ibid.*, **57**, 15.
4. Taylor, D. en Tyrrell, D. A. G. (1963): *Ibid.*, **57**, 19.