indications for measuring AED blood level. It was therefore rather disturbing to read of such categoric statements by the authors as 'the rate of inappropriateness of measurement of AED levels was 86%'. Although the variables used in their audits criteria are acceptable in principle, their application by the authors seem incomplete. The quality of the data evaluated by them as regards reliability, and completeness of the information supplied in the requests, level of competence of those making the requests and under what circumstances these were made, were not addressed or commented on. These factors definitely influence the accuracy of their data and thus question the validity of their results and conclusions. For example, it would be difficult to make meaningful inferences on data where the indications for measurement were 'not stated' in more than half (55.8%) of the cases (Table 2). In addition, the degree of patient drug-compliance which has been shown to be as low as 65% in Saudi epileptics3 was not commented upon.

Furthermore, the social issue of varying patterns of clinician behaviour and other social factors including patient-initiated requests were not addressed. It could be argued that to divide the sample into small subgroups to check this possibility? Since the subjects were interviewed anyway, a short dietary recall of recent or past intake could have confirmed the role of food in explaining the low vitamin D serum levels. Most methods of evaluating nutritional status are based on the premise of a sequence of stages representing increasing severity of nutritional inadequacy: inadequate dietary intake leading to exhaustion of adaptive mechanism, leading in turn to depletion of tissues, evidence of deficiency in blood and body fluids, and finally, anatomic and clinical lesions.6 More often than not, signs of clinical disease become more apparent as a direct consequence of an impaired metabolic or physiologic function because of a lack of or increased intake of certain nutrients.7

Some cases in point could be the diet serum lipid atherosclerotic relationship or the fat-cancer postulated relationship. These two well known associations have been studied repeatedly by epidemiologists and evidence points to some positive correlations. My recently completed doctoral thesis on the effect of diet on the incidence of disease studied these above-mentioned relationships.1

Some corollary findings were made and it was noted that while inadequate intake of food could produce clinical deficiency symptoms, excessive intakes as a result of affluence could affect the Saudi people in the worst ways. For example, it was found that cardiovascular disorders were positively correlated with lifestyle factors such as attending parties and the intake of sweets and meats and other expensive foods. Many investigators support the concept that rising affluence is widely regarded as an important causative factor in the epidemic of coronary disease that presently afflicts many Western industrialized societies.1,5,6

Dietary surveys that set out to establish a group's nutritional status are best conducted in the most accurate way that utilizes biochemical data. This is the reason why the two articles by Professor Sedrani should be appreciated; but they could have made a good contribution to the field of nutrition in the Kingdom had they included a survey of food intake in order to serve as a check on whether or not other factors could explain the vitamin D deficiency apart from the limited sunshine.

References

Vitamin D Status of Saudis

Sir,

I read the two articles by Dr Sedrani et al., in Saudi Med J 1992; 13(3), on the vitamin D status of Saudis. Basically, both articles had a common purpose—that of determining levels of plasma 25-OHD concentration of Saudis as a measure of vitamin D status of the population. One article dealt with regional differences in values for both males and females, whilst the other investigated the exact same group's problem with vitamin D levels except that they had been subdivided by age categories. Both articles intended to find some urban/rural differences in vitamin D status. The introduction, subjects studied, methods, and statistical analysis were all the same. Some of the tables in one article could have been combined or elaborated to include those of the other article. It could have made a difference if some other relationships had been studied, for example, regional age/sex distribution and frequency of insufficiency of vitamin D, or regional socioeconomic levels and vitamin D status. Statistical analysis could have been expanded to include these relationships.

One such factor also mentioned in one of the articles was that nutritional habits play a role in determining adequate vitamin D status. It was suggested that intake of phytate-containing foods such as fruits and vegetables could cause the deficiency. What if the more fitting than to do a dietary survey on a small subsample to check this possibility? Since the subjects were interviewed anyway, a short dietary recall of recent or past intake could have confirmed the role of food in explaining the low vitamin D serum levels. Most methods of evaluating nutritional status are based on the premise of a sequence of stages representing increasing severity of nutritional inadequacy: inadequate dietary intake leading to exhaustion of adaptive mechanism, leading in turn to depletion of tissues, evidence of deficiency in blood and body fluids, and finally, anatomic and clinical lesions. More often than not, signs of clinical disease become more apparent as a direct consequence of an impaired metabolic or physiologic function because of a lack of or increased intake of certain nutrients.

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Dietary surveys that set out to establish a group's nutritional status are best conducted in the most accurate way that utilizes biochemical data. This is the reason why the two articles by Professor Sedrani should be appreciated; but they could have made a good contribution to the field of nutrition in the Kingdom had they included a survey of food intake in order to serve as a check on whether or not other factors could explain the vitamin D deficiency apart from the limited sunshine.
Septicaemia in Sickle Cell Disease Patients at Qatif Central Hospital, Saudi Arabia

Sir,

I have read the article by A. M. El-Bashier et al. (Saudi Med J 1992; 13(3): 220–223) on septicaemia in sickle cell disease patients (SCD) at Qatif Central Hospital. The topic of SCD in Saudi Arabia has attracted worldwide interest resulting in several studies and publications. It is unfortunate that the authors did not refer to more recent reports which are more relevant to the subject of their study. In this regard, I would like to make the following comments:

1. It is known that in Saudi Arabia there are at least two types of SCD which are distinguishable clinically, haematologically, and genetically. The 'mild' type occurs predominantly in patients whose ancestral origin is from the Eastern Province, while the 'severe' type predominates in patients whose ancestral origin is in the south-west of the Arabian peninsula, no matter where they live, and is similar to the disease described in Western literature in patients of African ancestry.

2. The risk for infections is different in these two groups of patients. In a prospective controlled study of infections in early childhood in patients with SCD, who were born and lived in the Eastern Province, we found that patients of eastern origin have no increased risk for infections in general. This finding contrasts with the high risk of overwhelming infections in young children of south-western origins.

3. It would have been more informative if the authors had reported the ancestral origins of their patients in particular the children who died of overwhelming infections. In addition, differentiating between early childhood (up to 5 years) and later childhood, would lead to better definition of age at risk for infections and to results that are comparable with the literature. These age and origin risk factors for infections (as well as for other clinical features of SCD) are important to identify because of prophylactic and therapeutic implications.

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References