VITAMIN D

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EDITORIAL

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Dear Colleagues,

In this issue, we feature two contributions relating to the complex but focused topic of vitamin D metabolism, which is in part yet to be explored, and to the necessary distinction between normal and optimal vitamin D levels. The first article presents the fascinating interpretation of paleontology, according to which vitamin D, and in particular cholecalciferol, represents an extraordinary means which is finely regulated to respond above all to the necessity of improved intestinal absorption of calcium. This function became necessary when - during the course of evolution - vertebrates aradually moved from seas and oceans (where the availability of calcium was more than sufficient) onto land.

The second article of this issue is a contribution to the current discussion on the correct definition of vitamin D deficiency. It clarifies the fact that normal or optimal vitamin D values differ according to whether we are dealing with healthy populations or with patients with specific diseases who are particularly at risk of vitamin D deficiency or likely to suffer from its consequences.

Readers will note that a coherent definition of vitamin D deficiency is still lacking today on the part of the major international scientific associations that are concerned with this issue [1-4], as shown in Figure 1.

This lack of clarity indeed stems from the fact that different recommendations apply to different population types: these vary according to whether we are considering the healthy general population, for which 25OHD levels above 50 nmol/L seem to be sufficient to prevent known bone complications caused by deficiency, or if we are treating individual patients, such as those affected by osteoporosis – especially if elderly – for whom values above 75 nmol/L would appear to be optimal.

Clearly the correct definition of vitamin D deficiency influences prevention strategies, which will differ depending on the prevalence of this deficit: different definitions will apply to populations according to their various circumstances: phenotype, genetic make-up, age, race,

FIGURE 1.

Definition of vitamin D deficiency according to leading international scientific associations.

geographical location, climate, nutrition, culture and lifestyle...

A recent position statement of the European Calcified Tissue Society [4] – which was rightly dedicated to the memory of Steven Boonen and Silvano Adami – acknowledged that vitamin D deficiency is a common condition in Europe, especially in southern countries, as well as in the Middle East. For this reason, it recommends general strategies of fortified foods for the general population as well as vitamin D supplementation for high-risk cate-

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gories: children until the age of 3, pregnant women, elderly persons in institutions or over the age of 70, immigrants and refugees. What do you think?

I hope you enjoy reading this issue.

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