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Dear Readers,

Until now, we have sorely lacked an article in the field of gastroenterology concerning vitamin D. Now we have one in this issue. In particular, we look at the subject of celiac disease, thanks to the contributions of colleagues with expertise as gastroenterologists. As you will see, the connection between celiac disease and vitamin D has a double aspect: on the one hand, intestinal lesions can lead to poor absorption of vitamin D, with the well-known negative effects on bone health, while on the other hand vitamin D deficiency is associated with abnormal inflammatory response, which may promote the onset and continuation of enteropathy, at least potentially. Indeed, the authors report evidence from the literature which leads us to believe that vitamin D can play a role in the pathogenesis of celiac disease, both by means of a direct protective effect on the intestinal barrier and by modulating the immune response in order to stimulate tolerance mechanisms. In particular, in this field as well we find a rationale for protective action on the part of vitamin D with regard to a "cytokine cascade", an inflammatory response which at excessive levels can cause serious complications (because of so-called "friendly fire"), as has also been hypothesized during the COVID-19 pandemic [1]. In this context, we recently suggested [2] that the past use of aminobisphosphonates, which in the long term reduce the level of circulating T $\gamma\delta$ lymphocytes and hence the cytokine cascade responsible for the reaction in the acute phase, may account for the observed reduction of pneumonia and pneumonia-related fatalities in patients treated with these drugs [3].

In addition, in light of the current second wave of the SARS-Cov-2 pandemic, we believe we owe our readers an update on scientific progress regarding the COVID-19 disease. As the multiple immunomodulating effects of vitamin D are known and recognized, we felt obliged to include a bibliographical selection on the subject in this issue. I believe we can share the prudent, well-founded conclusions of the authors to whom we have entrusted this task: in their view, available data lends credence to a connection between vitamin D deficiency and susceptibility to and severity of infection by SARS-Cov-2.

As part of the research conducted during the previous pandemic wave, we studied the prevalence of 25(OH)D deficiency in patients hospitalized for COVID-19, examining in particular connections between vitamin D status and the seriousness of the illness [4]. Of the 61 patients included in the study, 72.1% showed 25(OH)D deficiency (< 20 ng/mL), while 57.4% had 25(OH)D levels < 15 ng/mL. Vitamin D deficiency was associated with increased risk of arterial PO₂ < 60 mmHg, a threefold increase in the risk of altered PCR values, and increased risk of suffering from dyspnea at the beginning of the illness. Nevertheless, it will be clear to you that because we are dealing with a retrospective observational study these results do not allow us to attribute a causal role to vitamin D deficiency, even if we take the known effects of phlogosis on serum 25(OH)D levels into account, especially when severe [5,6]. Only the results of clinical trials that involve vitamin D supplementation can give us sure answers on this score. In any case, I believe that in the meantime it is best to avoid the risk of vitamin D deficiency.

What do you think?

I wish you all well.

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