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## Letter to the editor

## Reply to “Nutritional approach to patients with coronavirus: our experience in 914 COVID-19–bed hospital”



Dear Editor,

We read with interest the article by Zanardi et al. [1], who presented the nutritional management protocol for patients admitted to their hospital with coronavirus disease 2019 (COVID-19). We fully agree with the authors regarding the need for pragmatism and simplicity in implementing nutritional support protocols for the management of hospitalized patients with COVID-19. However, we would like to point out that our protocol referred to non–critically ill patients [2], while for those admitted in the intensive/subintensive care setting, enteral nutrition via nasogastric tube has also been the first choice for nutritional support in our hospital.

We are currently conducting a prospective study to assess the occurrence and the clinical impact of early caloric deficit in intensive care unit patients, as we believe that, despite the implementation of appropriate shared protocols like the one presented by our Italian colleagues, the provision of timely and adequate nutritional support might have been very challenging and often insufficient in a relevant proportion of patients with COVID-19 [3], particularly during the first pandemic wave.

We congratulate Zanardi and colleagues [1] for their reported results in patients ventilated with continuous positive airway pressure, but we believe that beyond treatment tolerance and the effects of enteral nutrition on respiratory function, the actual provision of calories and proteins and its influence on relevant clinical outcomes should be primarily taken into consideration when assessing nutritional support efficacy.

We share with our Italian colleagues the awareness on the utility of oral nutritional supplements, which could be a feasible way to maintain or increase energy-protein intake and improve clinical outcomes not only during hospitalization [4], but also during the rehabilitation phase [5].

In particular, during the rehabilitation phase, which often occurs at home, the free provision of oral nutritional supplements should be strongly recommended to enhance the recovery of adequate nutritional status, but unfortunately, at least in Italy, it can occur only in the few contexts where structured clinical nutrition services or units are actively integrated into the health care system organization.

Like our colleagues in Turin, Italy, we have implemented a multidisciplinary outpatient clinic, which includes the systematic consultation by registered dietitians, aimed at facilitating the recovery

of adequate energy-protein intake, which is crucial in the rehabilitation process [6], in particular for patients with previous admission to the intensive care unit and for whom the occurrence of muscle loss and sarcopenia is more plausible [7].

Regarding vitamin D supplementation, several epidemiologic and observational studies support the hypothesis of its protective role [8], but most of these are still based on retrospective data or small case series, while some prospective observations, despite underlying the high prevalence of vitamin D deficiency in hospitalized patients with COVID-19, do not confirm the association between vitamin D 25-OH levels and clinical outcomes [9]. Zanardi and colleagues [1] opted for early supplementation in all hospitalized patients with 30 000 IU because of the lengthy time needed to obtain the blood dosage of vitamin D. In light of these considerations, we believe that this approach could have been justified only by the previous emergency scenario, as it is likely to be futile in the absence of periodic monitoring of vitamin D serum levels.

In conclusion, we confirm our satisfaction in noticing once again that our article stimulated the elaboration of several protocols aimed at promptly implementing nutritional care in patients with COVID-19, and we would like to further underline the need for systematic and appropriate nutritional management in all patients with COVID-19 both during hospitalization and rehabilitation.

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