Clinical Nutrition 38 (2019) 2468–2469

Contents lists available at ScienceDirect

Clinical Nutrition

journal homepage: http://www.elsevier.com/locate/clnu

Letter to the Editor

Comment on "Nutritional situation of enterally fed patients in neurological early rehabilitation and impact of nutritional status on functional outcome"

Keywords:
Enteral feeding
Early rehabilitation
Nutritional status
Rehabilitation nutrition

Dear Editor,

In a recent study published in this journal, Schmidt et al. [1] reported nutritional situation of enterally fed patients in neurological early rehabilitation and impact of nutritional status on functional outcome. This is a particularly important finding, because our study showed that nutritional improvement and energy intake were associated with better functional recovery in older stroke patients in the convalescent rehabilitation ward [2,3]. Moreover, severe malnutrition risk predicts the achievement of full oral intake in older stroke patients undergoing enteral nutrition in the convalescent rehabilitation ward [4]. However, we have several concerns about the study design and results.

First, nutritional assessments were not performed sufficiently in this study. Body weight and body weight change were used as indicators of nutritional status. However, edema and constipation were observed in 35 patients (32%) and 73 patients (67%), respectively. Moreover, the higher the number of days of constipation, the higher was the increase of weight during rehabilitation, indicating that feces may contribute to weight gain. Therefore, body weight and body weight change alone were insufficient to evaluate nutritional status. Furthermore, reliable and validated nutrition assessment tools such as the Mini Nutritional Assessment and the Subject Global Assessment were not used. The authors should use reliable and validated nutrition assessment tools.

Second, statistical analyses were not performed sufficiently in this study. In the subgroup analysis, the sample size was quite small, and variation of the patient was quite large. For example, the number of oversupplied patients in underweight, normal weight and overweight were 7 (6%), 8 (7%), and 1 (1%), respectively. Range of the patients' age was quite large (22–92 years). However, multivariate analyses were not performed. The authors should perform multivariate analyses in this study.

Third, the author did not report the contents, time and frequency of rehabilitation and function training in this study. We developed the concept of rehabilitating nutrition [5]. In rehabilitating nutrition, nutrition care management in consideration of rehabilitation is very important, because the contents, time and frequency of rehabilitation and function training affect not only functional recovery but also energy consumption. However, the contents, time and frequency of physical therapy, occupational therapy, and speech-language-hearing therapy were not described. The authors should report the contents, time and frequency of physical therapy, occupational therapy, and speech-language-hearing therapy in this study.

Finally, the primary main diagnoses were unknown in this study. The authors reported that the most frequent primary main diagnoses were cerebral hemorrhages (n = 51, 47%) followed by stroke (n = 26, 24%). However, cerebral hemorrhage is certainly included in stroke. What does stroke mean in this study?

It would be helpful if the authors could address these concerns in order to clarify their findings.

Financial support

None.

Author contributions

SI, AN and HW: concept, interpretation, drafting the manuscript.
All authors revised the manuscript critically for important intellectual content and approved the final version of the manuscript.

Conflicts of interest

None.

References

[1] Schmidt SB, Boltzmann M, Rollnik JD. Nutritional situation of enterally fed patients in neurological early rehabilitation and impact of nutritional status on functional outcome. Clin Nutr 2019. https://doi.org/10.1016/j.clnu.2019.02.011 [Epub ahead of print].
[2] Nishioka S, Wakabayashi H, Nishioka E, Yoshida T, Mori N, Watanabe R. Nutritional improvement correlates with recovery of activities of daily living among malnourished elderly stroke patients in the convalescent stage: a cross-sectional study. J Acad Nutr Diet 2016;116(5):837–43.
[3] Nii M, Maeda K, Wakabayashi H, Nishioka S, Tanaka A. Nutritional improvement and energy intake are associated with functional recovery in patients after cerebrovascular disorders. J Stroke Cerebrovasc Dis 2016;25(1):57–62.
[4] Nishioka S, Okamoto T, Takayama M, Urushihara M, Watanabe M, Kiriya Y, et al. Malnutrition risk predicts recovery of full oral intake among older adult stroke patients undergoing enteral nutrition: secondary analysis of a multicentre survey (the APPLE study). Clin Nutr 2017;36(4):1089–96.

https://doi.org/10.1016/j.clnu.2019.05.025

[5] Nagano A, Nishioka S, Wakabayashi H. Rehabilitation nutrition for iatrogenic sarcopenia and sarcopenic dysphagia. J Nutr Health Aging 2019;23(3):256–65.

Saori Imura*
Department of Clinical Nutrition and Food Service, Kokura Rehabilitation Hospital, Japan

Ai Nishiyama
Department of Clinical Nutrition and Food Service, Yasuoka Hospital, Japan

Hidetaka Wakabayashi
Department of Rehabilitation Medicine, Yokohama City University Medical Center, Japan

* Corresponding author. Department of Clinical Nutrition and Food Service, Kokura Rehabilitation Hospital, 1-5-1 Shinozaki, Kitakyushu city, Fukuoka, 803-0861, Japan.. Fax: +81 093 591 9050
E-mail address: imura_saori@yahoo.co.jp (S. Imura).

6 March 2019