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Letter to the Editor

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CWL, critical weight loss; SO, sarcopenic obesity

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Comment on 'Sarcopenic obesity in patients with head and neck cancer is predictive of critical weight loss during radiotherapy'

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Dear Editor,

We congratulate Vangelov and colleagues for their study, which primarily examined sarcopenic obesity (SO) prevalence and its influence on survival of 413 head and neck cancer patients treated with curative intent. SO was defined utilising BMI and radiologically defined sarcopenia status[1]. The secondary objective of this study was to identify the predictors of critical weight loss (CWL) concerning SO within this patient cohort. CWL, sarcopenia and SO were identified in 58 %, 43 % and 28 % of the study population. Patients with SO were found to have a significantly higher incidence of CWL (70 *v.* 19, $P < 0{\cdot}001$) and were fourfold increase in this condition during treatment (OR 4·1; $P = 0{\cdot}002$). Study results revealed that sarcopenia did not impact overall survival or cancer-specific survival. However, in the sarcopenia group, those with SO had better overall survival (median 9·1 *v.* 7·0 years; $P = 0{\cdot}021$). The authors should address two critical issues to improve our understanding of the results presented and provide a solid foundation for future research projects.

First, the authors indicated that individuals with SO exhibited a markedly elevated incidence of CWL (70 *v.* 19, $P < 0{\cdot}001$) and were four times more likely to encounter this condition during therapy (OR 4·1; $P = 0{\cdot}002$) compared to non-SO patients. However, their comparison methodology is not statistically sound[2]. This is because the comparisons between the absolute numbers of events in different groups may only indicate meaning if converted to the relative percentages per group. To illustrate, 70/116 (60·3 %) SO patients and 19/297 (6·4 %) non-SO patients experienced CWL before the intended treatment, and the discrepancy between the two groups is more pronounced when comparing the percentages than merely comparing the absolute numbers of CWL in each group. Additionally, in the original Table 1 of the manuscript, the authors did not include the relative distributions of the baseline patient, disease and treatment characteristics and the corresponding *P*-values, which is indispensable for a thorough comparison between the two groups[3]. However, some factors may unintentionally favor one group over another, potentially impacting the presented results. For example, N1–3 status was evident in 70/116 (60 %) SO patients and 211/297 (71 %) non-SO patients, which may have offset the survival benefit of the non-SO status.

And second, considering the European Working Group on Sarcopenia in Older People (EWGSOP1 and EWGSOP2) definitions for sarcopenia, in their study[4,5], Vangelov and colleagues define myopenia rather than sarcopenia[1]. Accordingly, an accurate diagnosis of sarcopenia necessitates the identification of dynapenia (loss of muscle strength) as the primary criterion, with myopenia (reduction in muscle mass) serving as the confirmatory criterion[5]. Therefore, assessing muscle mass alone using radiological tools to measure skeletal muscle index in cancer patients does not meet the comprehensive criteria for diagnosing sarcopenia[4,5]. Although this erroneous terminology is frequently utilised in the sarcopenia literature[6,7], in studies that lack muscle strength evaluations, it is prudent to use 'myopenia' term rather than 'sarcopenia' so as not to underestimate the actual incidence and prognostic impact of sarcopenia in cancer patients, including those with head and neck cancer.

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