Identification of Malnourished patients using the Global Leadership Initiative on Malnutrition (GLIM) diagnostic criteria in the United Arab Emirates

Karavetian Mirey

Zayed University, United Arab Emirates

Abstract:

Background: Malnutrition is still a common problem in hospital settings with adverse impacts on patient functional and clinical outcomes. Malnutrition is also associated with increased morbidity, mortality, and costs. Prevalence of malnutrition often cannot be compared across studies due to the lack of uniform diagnostic criteria. GLIM criteria propose a global scheme for the diagnosis of malnutrition that include three phenotypic criteria (Low BMI, weight loss and reduced muscle mass) and two etiologic criteria (reduced food intake and inflammation). To establish a diagnosis, it is proposed that at least one phenotypic and one etiologic criterion are identified. This study aims at identifying malnourished hospitalized patients using the proposed GLIM criteria. Methods: A cross sectional, multicenter study in the United Arab Emirates aimed at identifying malnourished patients using the proposed GLIM criteria. A total of 371 patients were assessed in two hospitals in the UAE. Patients were assessed for the identification of 2 phenotypic (Low BMI and weight loss) and 2 etiologic criteria (reduced food intake and inflammation). Given that reduced muscle mass was not assessed due to limited resources, handgrip strength was measured and used as supportive measure. CRP was also considered as a supportive measure for the identification of inflammation. Having at least one phenotypic and one etiologic criterion was used to identify the diagnosis of malnutrition. Results: A total of 371 patients were equally recruited and included from two hospital sites, Al Rashidi (Dubai) and Al Qassimi (Sharjah) (50.94% vs. 49.06% respectively). The mean age of the participants was 50.85 (SD = 16.55). A total of 103 patients out of the 371 (27.76%) were diagnosed as malnourished according to GLIM criteria. Among those that did not fit the diagnosis of malnutrition, 67.81% (99/146) of females had handgrip strength values that were ≤18.5 kg. As for males, the mean handgrip strength was 27.84 kg (SD= 12.25) with 57.50% (69/120) having values that were ≤ 30 kg. Among those patients, 68.42% were positive for the presence of disease (65/95) and 14.74% (14/95) had both. There was no significant correlation between the low handgrip strength and BMI in both genders. However, there was a significantly negative correlation between handgrip strength and CRP (rho/ = -0.14, p = 0.0294). Conclusions and Implications: A total of 27.76% of the sample was identified to have a diagnosis of malnutrition using GLIM criteria. In clinical settings with limited resources, handgrip strength can be considered a useful tool to identify malnourished patients irrespective of BMI.

Biography:

Karavetian Mirey is currently working as a professor at Zayed University, UAE.

Recent Publications:

1. A Dietary Mobile App for Hemodialysis Patients: A Pilot Study, Karavetian Mirey

2. Malnutrition-Inflammation Score VS Phase Angle in the Era of GLIM Criteria: A Cross-Sectional Study among Hemodialysis Patients in UAE, Mirey Karavetian, Nada Salhab, Rana G. Rizk, Kalliopi Anna Poulia

3. Effect of Intradialytic Exercise on Hyperphosphatemia and Malnutrition, Nada Salhab, Mona Alrukhaimi, Mirey Karavetian

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