Malnutrition Among Adult Hospitalized Orthopedic Patients: Nursing Role And Nutrition Screening

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Abstract : Introduction: The nursing role in nutrition screening and assessing hospitalized patients is important. Malnutrition is a common and costly problem, particularly among hospitalized patients, and can have an adverse effect on the healing process. The study's goal is to assess the prevalence of malnutrition among adult hospitalized orthopedic patients and to detect the barriers to the nutrition screening process. Aim of the study: This study aimed to (a) assess the prevalence of malnutrition in hospitalized orthopedic patients and (b) evaluate the relationship between malnutrition and selected clinical outcomes. Material and Methods: This prospective field study was conducted for three months between 03/2022 and 06/2022 in the selected orthopedic departments in a teaching hospital affiliated withCairo University, Egypt. with a total number of one hundred twenty (120) patients. Patients' assessment included checking for malnutrition using the Nutritional Risk Screening Questionnaire. Patients at risk for malnourishment were defined as NRS score ≥ 3. Clinical outcomes under consideration included 1) length of hospitalization, 2) mobilization after surgery and conservative treatment, and 3) rate of adverse events. Results: This study found that malnutrition is a significant problem among patients hospitalized in an orthopedic ward. The prevalence of malnutrition was the highest in patients with lumbar spine and pelvis fractures, followed by the proximal femur and proximal humerus fractures. Patients at risk for malnutrition had significantly prolonged hospitalization, delayed postoperative mobilization, and increased incidence of adverse events.27.8% of the study sample were at risk for malnutrition. The highest prevalence of malnourishment was found in Septic Surgery with 32%, followed by Traumatology with 19.6% and Arthroplasty with 15.3%. A higher prevalence of malnutrition was detected among patients with typical fractures, such as lumbar spine and pelvis (46.7%), proximal femur (34.4%), and proximal humeral (23.7%) fractures. Additionally, patients at risk for malnutrition showed prolonged hospitalization (14.7 ± 11.1 vs. 21.2 ± 11.7 days), delayed postoperative mobilization (2.3 ± 2.9 vs. 4.1 ± 4.9 days), and delayed to mobilize after conservative treatment (1.1 ± 2.7 vs. 1.8 ± 1.9 days). A significant statistical correlation of NRS with individual parameters (Spearman's rank correlation, $p < 0.05$) was observed. The rate of adverse incidents in patients at risk for malnutrition was significantly higher than that of patients with a regular nutritional status (37.2% vs. 21.1%, $p < 0.001$). Conclusions: Our results indicate that the prevalence of malnutrition in surgical patients is significant. The nutritional status of patients with typical fractures is especially at risk. Prolonged hospitalization, delayed postoperative mobilization, and delayed mobilization after conservative treatment is significantly associated with malnutrition. In addition, the incidence of adverse events in patients at risk for malnutrition is significantly higher.

Keywords : malnutrition, nutritional risk screening, surgery, nursing, orthopedic nurse

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