

Habitual dietary patterns of patients on hemodialysis indicate nutritional risk

ABSTRACT

Objective: This study aimed to (i) determine habitual dietary patterns of Malaysian patients on hemodialysis (HD) and (ii) examine their association with nutritional status. Methods: An à posteriori approach examined 3-day dietary recalls of 382 multiethnic Malaysian patients on HD, leading to short-listing of 31 food groups. Dietary patterns were derived through principal component analysis. Sociodemographic and lifestyle characteristics together with nutritional parameters were examined for associations with specific dietary patterns. Results: Four dietary patterns emerged, namely, “Home Food,” “Eating Out (EO)-Rice,” “EO-Sugar sweetened beverages,” and “EO-Noodle.” Younger patients, male gender, Malay, and patients with working status were more likely to follow “EO-Rice” and “EO-Sugar sweetened beverages” patterns, while Chinese patients were more likely to consume “EO-Noodle” pattern (all P values < .05). The EO frequency was directly associated with “EO-Rice” (P = .030), “EO-Sugar sweetened beverages” (P = .040), and “EO-Noodle” (P = .001) patterns. The highest tertile of the “Home Food” pattern related to higher handgrip strength (T3 = 21.3 ± 0.74 vs. 18.0 ± 0.73 kg, P = .006), higher serum albumin (T3 = 3.99 ± 0.04 vs. T1 = 3.84 ± 0.04 g/dL, P = .027), and lower Malnutrition-Inflammation Score (T3 = 4.9 ± 0.36 vs. T1 = 6.4 ± 0.34, P = .010), along with lower Diet Monotony Index (T3 = 29.0 ± 1.1 vs. T1 = 33.0 ± 1.0, P = .030). while “EO-Rice” and “EO-Sugar sweetened beverage” patterns were associated only with higher energy intake (all P values < .001). Conclusions: These results indicated that a home-based diet inclusive of healthy food choices was associated with better nutritional status in this HD population.