E-Poster

EP-548

Nutrition in Persons With a Lower Limb Amputation

Topic: Prosthetics and Orthotics

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BACKGROUND

People who have undergone a major dysvascular lower limb amputation (LLA) are at high risk for adverse clinical outcomes, including undernutrition. However, prevalence of undernutrition in this population is unknown. Therefore, the aim of this study was to determine the nutritional intake and prevalence of undernutrition post-LLA, and to identify determinants of undernutrition.

METHODS

In this prospective longitudinal observational study, adults who underwent a major dysvascular LLA were included in six hospitals (n = 81). At several measurement occasions following amputation (< 12 days, 5 weeks, 6 months, 9 months), participants' nutritional intake (24-hour recall) and nutritional status (Patient-Generated Subjective Global Assessment, body mass index, grip strength, mid upper arm circumference, and triceps skinfold) were determined. Furthermore, the Dutch Healthy Diet index was determined. Potential determinants of undernutrition, i.e., age, sex, Charlson comorbidity index, LLA level, uni/bilateral LLA, education level, living situation, smoking status, pain level, and physical activity level, were assessed using mixed effect models.

RESULTS

Median energy intake was 1647 [1178, 2199], 2053 [1516, 2340], 1920 [1263, 2240], and 1797 [1343, 2211] kcal/day (p=0.002), and protein intake was 76 [59, 100], 88 [68, 114], 84 [64, 101], and 75 [57, 97] grams/day (p=0.017) at < 12 days, 5 weeks, 6 months, and 9 months post-LLA, respectively. Prevalence of undernutrition was 83%, 56%, 28%, and 24%. Determinants of undernutrition were: living in a care facility (OR = 6.2, p < 0.001) and lower physical activity (OR = 0.96 for every hour of physical activity/week, p = 0.006). Need for nutritional intervention was present in 100%, 82%, 67% and 54% of participants at < 12 days, 5 weeks, 6 months, and 9 months post-LLA.

CONCLUSION

Inadequate nutritional intake and undernutrition are alarmingly prevalent post-LLA. Living in a care facility and lower physical activity are determinants of undernutrition. Interventions to improve nutritional status, to potentially optimize clinical outcomes in the major dysvascular LLA population are highly needed

Statement of Disclosures

None

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Doi: 10.5606/archisprm.2026.EP-548