## Abstract

**Introduction:** nutrition of cancer patients is a frequently discussed topic. Tumor growth is conditioned by the production of pro-inflammatory cytokines in the body, which leads to metabolic changes and the development of tumor cachexia syndrome. Immunomodulatory nutrition and efforts to at least partially control inflammation are essential in cancer.

**Aim of the study:** The aim of the study was to evaluate the dietary intake of omega-3 fatty acids in the diet of cancer patients and to analyse the main dietary sources of these polyunsaturated acids.

**Research Methods**: In this observational and questionnaire-based non-interventional study, 10 respondents who had not shown signs of cancer for more than a year, were older than 18 years and according to the highest frequency of cancer incidence were selected.

**Results:** The average daily intake of omega-3 FAs in the study group was 1.59 g/day for both sexes, which represents 53% of the recommended therapeutic dose of 3 g/day (DLD). In contrast, the average daily intake of omega-3 FAs in men was found to be 1.47 g/day, corresponding to 49 % of the DLD.

**Conclusion:** Analysis of the dietary intake of cancer patients in remission suggested that their intake of omega 3 fatty acids is minimal and does not even reach the recommended values for the general population. Knowledge of food sources was also below average. The effect of omega-3 fatty acids on the regulation of inflammation is clear and immunomodulatory nutrition may be of major benefit to cancer patients. In view of the increasing incidence and prevalence of the disease, it would be advisable to increase awareness of important food sources and educate patients about supplementation options or refer them to nutritionists' offices.

**Keywords:** cancer, omega-3 fatty acids, cancer cachexia syndrome, sources of polyunsaturated fatty acids