Abstract

Aims: Based on the analysis of SHARE (Survey of Health, Ageing and Retirement in Europe) data in the Czech Republic, map the current situation in the field of malnutrition and (geriatric) frailty diagnosis in primary care. To describe the prevalence of frailty and related nutritional disorders, including the factors influencing their occurrence in the Czech population 50+ and to assess lifestyle factors (physical activity and dietary habits) and awareness of this population of possible available intervention strategies for the above described diseases.

Methods: The analysis included the results of the CAPI (Computer Assisted Personal Interview) primary questionnaire common to all participating countries and the National Written Questionnaire developed exclusively for the Czech Republic. For the National Written Questionnaire I designed a special module D, "Nutrition" summarizing questions related to dietary habits, nutritional care and nutritional literacy. Standardly used and validated scales and dg. criteria (SHARE FIt, SHARE FIx, FRAIL Scale, MST, GLIM criteria, BMI and hand-grip test) were used to assess the prevalence of frailty, malnutrition, obesity and sarcopenic obesity, which are not part of the CAPI primary questionnaire assessment. Modified scales of the EURO-D score, Beck Anxiety Inventory were used to assess the presence of depression and anxiety. The ADL and IADL scales were used to assess self-sufficiency in activities of daily living. Data were processed using IBM SPSS Statis-tics 28.0.

Results: The prevalence of frailty varied depending on the scale used, with SHARE FIx assessing 16.3% (n = 377) and 54.8% (n = 1269) of par-ticipants as frail and pre-frail, respectively; SHARE FIt and FRAIL Scale assessing 5.2% (n = 112) and 14.8% (n = 319), respectively; and FRAIL Scale assessing 4.0% (n = 92) and 29.0% (n = 671), respectively. The prevalence of malnutrition, obesity and sarcopenic obesity in the study population was as follows - 9.2% (n = 212), 32.2% (n = 746) and 15.9% (n = 369), respectively. Frailty was statistically significantly correlated with the presence of malnutrition, for all three scales used ($\chi 2$ test, $p < 0.001$). Similarly, the presence of depression, anxiety, polypharmacy, multimorbidity and pain was associated with poorer nutritional status (Pearson correlation coefficient, $p < 0.001$ for all five factors). Lifestyle factors, i.e. subjects' dietary habits and regular physical activity, did not correspond to contemporary recommendations. Awareness of the existence and availability of nutritional therapists as specialized health professionals with knowledge and competence in nutrition and of the possibilities of nutritional therapy and its coverage by public health insurance appeared low.

Conclusion: Good nutritional status and optimal physical activity are currently the main preventive strategies for the development of (geriatric) frailty, which signals a decline in vitality, general vulnerability of the organism and the risk of disability. The collaboration of general practitioners, geriatricians, physiotherapists and qualified nutritionists – dietitians – is one of the most effective possible in this respect. Preventive screening and subsequent dispensing of patients in nutritional clinics could significantly reduce the economic costs of treating an already developed frailty syndrome or caring for frail individuals. The results of our study show a high prevalence of frailty in the population over 50 years of age in the Czech Republic and its clear association with impaired nutritional status. They also point to possible inadequate provision of nutritional care and poor nutritional literacy in the general population of older adults and seniors. Preventive measures and a well-established network of professionals could help to address these problems and stimulate further needed research in this area.

Keywords: geriatric frailty, malnutrition, dietitian, primary care