

## Abstract

**Objectives:** The aim of this non-interventional observational study was to determine the nutritional status of long-term hospitalized patients in a psychiatric hospital using anthropometric indicators of nutritional status. Assess the presence of overweight, obesity and pathological waist circumference in patients with schizophrenia. Evaluate the incidence of malnutrition and risk of its development in patients with dementia.

**Methods:** The data were obtained by measuring the selected patients in Psychiatric hospital Kosmonosy, were collected data on body weight, arm circumference, waist and calf. Data were completed by information from nursing records - body height of the patient, age, length of hospital stay and used antipsychotic medication. The data of weight and height were used to calculate BMI.

**Results:** The study included a total of 121 patients, of whom 56 (46.28 %) men and 65 (53.72 %) women. Patients were divided into two groups by diagnosis, the first group of schizophrenia, and schizoaffective disorders (93 patients) and another group with a diagnosis of dementia (28 patients). In the first group, the incidence of overweight was present in 26.88 % of patients, obesity in 25.81 % of patients and abdominal obesity was present in 79.57 % of patients. The highest average BMI, the prevalence of obesity and waist circumference, had patients, who took Sulpiride (BMI = 30.48 kg/m<sup>2</sup>, the prevalence of obesity 66.67 %, waist circumference = 107.67 cm). There was an occurrence of underweight in 3.57 % of patients from second group, the average arm circumference was 25.02 cm (86.99 % standard), average calf circumference was 31.34 cm, 35.71 % of patients are in increased risk of developing malnutrition according to the values of calf circumference. The presence of severe malnutrition was not found. An examination of the relationship of anthropometric indicators of nutritional status has been detected a high level of positive correlation between BMI and waist circumference ( $\rho = 0.89$ ,  $p = 0.0000$ ), BMI and arm circumference ( $\rho = 0.81$ ,  $p = 0.0000$ ) and BMI and calf circumference ( $\rho = 0.75$ ,  $p = 0.0000$ ).

**Conclusions:** Psychiatric patients are more vulnerable group of people than the general population in terms of nutritional status. In patients with schizophrenia and schizoaffective disorders is the high incidence of pathological waist circumference, therefore the presence of abdominal obesity. Patients with dementia is satisfactory nutritional status, however, is not sufficient to prevent the rapid progression of the disease. The goal of nutritional care in psychiatry is to identify risk factors that worsen the nutritional status of the patient and multidisciplinary care, which is provided individually.

**Key words:** anthropometric assessment, obesity, schizophrenia, dementia, malnutrition