Date: 13th January-2026

HYGIENIC ASSESSMENT OF NUTRITIONAL STATUS IN PATIENTS WITH TUMOR DISEASE

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Introduction. The composition of the diet changes significantly depending on the seasons of the year. Seasonal dietary habits lead to an imbalance in the ratio of macronutrients (proteins, fats, and carbohydrates), which directly affects metabolic processes, immune response, and inflammatory processes [1,6,8]. This is especially important in patients with chronic diseases, including those with tumor diseases of the digestive system, where an unbalanced diet may contribute to the intensification of inflammatory processes, worsening of clinical symptoms, and deterioration of the disease course [2,4,5].

Hygienic assessment of the dietary intake of patients with tumor diseases of the digestive system is of significant scientific and practical importance for disease prevention, rehabilitation, and optimization of diet therapy.

Objective. The aim of the study was to conduct a hygienic assessment of the dietary composition in patients with tumor diseases of the digestive system.

Materials and methods. The analysis was carried out based on 7-day dietary records of 150 patients (questionnaire method, Cronbach's alpha = 0.85). The dietary composition was calculated using the I.M. Skurikhin food composition tables (1987/2020) and the Nutrium software. Statistical analysis was performed using the t-test and paired t-test ($p<0.05$).

Results. It was found that during the cold season of the year (winter–spring), the dietary intake of patients with tumor diseases of the digestive system was significantly excessive in terms of macronutrients. The average fat intake was 195 ± 20 g, which was 79.5% higher than the recommended level (110 g). Carbohydrate intake amounted to 580 ± 50 g, exceeding the recommended level by 111.8%, while protein intake was statistically confirmed to be 52.2% higher than recommended ($p<0.05$). Such an imbalanced diet was associated with dietary habits typical of the cold season, particularly the high consumption of fatty meat products, flour-based dishes, and national foods; for example, the amount of fat used in pilaf preparation was noted to reach up to 150 g. This condition may intensify systemic inflammatory processes in patients with tumor diseases of the digestive system and was assessed as being associated with a 20–30% increased risk of elevated C-reactive protein (CRP) levels.

During the warm season (summer–autumn), relatively positive changes in dietary composition were observed. Fat intake was 180 ± 15 g, which was 14.3% lower compared to the cold season, while carbohydrate intake decreased to 495 ± 40 g, approaching recommended values. Protein intake was noted to increase by 58%. Differences in macronutrient intake between seasons were statistically significant ($p<0.05$, paired t-test).

Although the wide availability of fruits and vegetables contributed to improved dietary balance, the overall energy value remained high, averaging 3000 ± 200 kcal.

Overall, the diet of patients with tumor diseases of the digestive system showed a significant dependence on seasonal characteristics, with excessive consumption of fats and carbohydrates during the cold season and a relatively more balanced, but still high-calorie, diet during the warm season. This indicates the need to hygienically optimize seasonal dietary habits and to develop individualized dietary recommendations.

Conclusion. In patients with tumor diseases of the digestive system, dietary intake is significantly dependent on seasonal changes, with excessive consumption of fats and carbohydrates during the cold season increasing the risk of inflammation. Although dietary balance improves during the summer–autumn season, overall caloric intake remains high. Therefore, it is necessary to develop seasonal dietary recommendations and implement hygienic preventive measures.

REFERENCES:

1. Azizova F. L., Boriboyev E. M., Boriboyeva M. M. Hygienic analysis of body mass index among workers at a tobacco products manufacturing enterprise // Medical Journal of Young Scientists. – 2024. – No. 12 (12). – P. 272–278.

2. Baymamatovich O. B. et al. Analysis of socio-hygienic indicators in patients with oral cavity cancer. – 2025.

3. Baymamatovich O. B. et al. HYGIENIC ANALYSIS OF THE DIET OF WORKERS OF THE MINING AND METALLURGICAL PLANT //Eureka Journal of Health Sciences & Medical Innovation. – 2026. – Т. 2. – №. 1. – С. 266-272.

4. Baymamatovich O. B. et al. HYGIENIC ASSESSMENT OF THE NUTRITIONAL STATUS OF WORKERS OF A MINING AND METALLURGICAL PLANT //AMERICAN JOURNAL OF APPLIED MEDICAL SCIENCE. – 2026. – Т. 4. – №. 1. – С. 161-165.

5. Baymamatovich O. B., Furqatovnar O. G. HYGIENIC ASSESSMENT OF THE NUTRITIONAL STATUS OF PATIENTS WITH ORAL CANCER. – 2025..

6. Ermatov N. J. et al. HYGIENIC ANALYSIS OF THE NUTRITIONAL CONDITION OF THE EMPLOYEES OF TEXTILE ENTERPRISE. – 2024.

7. Ortiqov B. B. et al. Hygienic analysis of risk factors among potassium plant workers // Medical Journal of Young Scientists. – 2025. – No. 15 (09). – P. 181–185.

8. Ortiqov B. B. Hygienic analysis of diseases occurring among workers // Medical Journal of Young Scientists. – 2025. – No. 16 (12). – P. 155–159