

**HYGIENIC ANALYSIS OF FRUIT CONSUMPTION IN THE DAILY DIET OF
PATIENTS WITH TOXIC HEPATITIS DURING THE SUMMER SEASON**

Ermatov N.J., Mamasidikov N.Sh., Uluknazarova I.A.
Tashkent State Medical University



Relevance of the study. Proper nutrition plays a significant role in the development and progression of toxic hepatitis. Scientific analyses indicate that the daily diet of patients often does not meet hygienic requirements. Deficiencies of macro- and micronutrients, particularly insufficient consumption of fruits and vegetables, are considered among the major risk factors (1,7,8,9,10,12).

Chronic viral mixed hepatitis is most frequently observed among socially active young and middle-aged individuals, predominantly in men. Common risk factors include artificial administration of narcotic substances (55%), parenteral exposure (25%), and tattooing (19%). Gastrointestinal and endocrine disorders are often identified as concomitant pathologies. Chronic viral mixed hepatitis mainly develops as a result of combinations of HCV and HBV infections, as well as HCV+HBV+HDV coinfections. HCV replication is observed in 64% of cases, HBV replication in 58%, and HDV replication in 20% of cases. Transformation into liver cirrhosis was identified in 25% of patients with HCV+HBV+HDV mixed hepatitis and in 7.1% of patients with HCV+HBV coinfection. In cases where HBV and HDV replication occurred without HCV replication, progression to liver cirrhosis was noted in 36% of patients. Isolated HDV replication resulted in cirrhosis in 25% of cases, while isolated HBV replication accounted for 14%. Among patients with HCV+HBV mixed infection, cirrhosis developed in 9% of cases with simultaneous replication of both HBV and HCV. Isolated HCV replication was comparatively less common and resulted in cirrhosis in 6% of cases (2,3,4,5,6,11).

Considering the above, the hygienic analysis of fruit consumption among patients suffering from toxic hepatitis during the summer season remains an actual and important issue.

Materials and methods. The study materials were collected under expedition conditions four times throughout the year (winter, spring, summer, and autumn seasons). The exact food products consumed daily by patients over a 14-day period were recorded in dietary assessment sheets. The obtained results were compared with the requirements of the current sanitary norms and regulations SanR&N (sanitary rules and norms) 0007-2020, "Average Daily Rational Nutrition Standards Aimed at Ensuring Healthy Nutrition for Population Groups of the Republic of Uzbekistan According to Age, Gender, and Occupational Activity."

The content of essential nutrients and the energy value of the daily diet were calculated according to «**Chemical Composition of Food Products**» (B.A. Dushchanov, 2002). Nutritional assessment was based on questionnaires completed by patients on the

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day of admission to the hospital, reflecting their dietary habits under home conditions, followed by statistical analysis.

Analysis of the obtained results. The analysis of fruit consumption among patients with toxic hepatitis during the summer season revealed the following findings. According to current normative documents, the recommended fruit intake is 250 g per day. In addition, the recommended intake includes 30 g of grapes, 15 g of citrus fruits, and 20 g of dried fruits.

Our analysis demonstrated that grape consumption during the summer season accounted for only 30% of the recommended norm, indicating a very low level of intake. Red grapes are considered particularly beneficial in toxic hepatitis. Citrus fruit consumption reached 33.5% of the recommended level, although citrus fruits are also included in preventive dietary regimens. Overall fruit consumption constituted only 35.2% of the recommended amount, while the deficiency of total fruit intake reached 64.8%.

Conclusion. Based on the obtained results, it should be emphasized that the daily diet of patients suffering from toxic hepatitis does not comply with hygienic nutritional requirements. Deficiency of proteins and animal fats in the diet contributes to a decrease in the body's resistance, while insufficient intake of vitamins and minerals leads to the development of related complications. Further research in this area is necessary.

REFERENCES:

1. Abdulkhayeva Z.A., Ermatov N.J., & Kenzhabaev D. (2024). Results of hygienic analysis of the winter daily diet of patients with chronic glomerulonephritis.
2. Akalaev R.N. et al. Diagnosis of toxic liver damage in acute poisoning and severely burned patients. *Dzhanelidze Readings-2023*, 2023, p. 4.
3. Avdeeva M.G. et al. Chronic viral mixed hepatitis: modern clinical and epidemiological aspects. *Epidemiology and Infectious Diseases*, 2015, 20(6), 19–25.
4. Koroleva M.V. (2015). Exogenous toxic hepatitis: modern views on etiology, pathogenesis, and clinical course. *Medicinal Bulletin*, 9(2), 18–22.
5. Muminov Sh.K., & Ermatov N.J. (2018). Features of metabolism in patients with coronary heart disease in the aspect of contrast-induced nephropathy. *European Research: Innovation in Science, Education and Technology*, pp. 60–62.
6. Pak A.G., Osipov Yu.S. On the issue of spa treatment for patients with metabolic liver disorders. *Medical Prevention, Rehabilitation and Resort Medicine at the Turn of the Third Millennium*, 2016, p. 263.
7. Khabibov Sh.A., & Ermatov N.J. Hygienic analysis of the prevalence of comorbid diseases among patients with circulatory system disorders. *Student Bulletin*, InterNauka Publishing House, 28–29.
8. Ermatov N.J., Tashkenbaeva U.A., & Khozhiev D.B. (2023). Hygienic analysis of the relationship between morbidity and quality of life in patients with psoriasis. *Journal of Humanities and Natural Sciences*, 3(2), 91–100.



INTRODUCTION OF NEW INNOVATIVE TECHNOLOGIES IN EDUCATION OF PEDAGOGY AND PSYCHOLOGY.

International online conference.

Date: 27th May-2026

9. Duschanov B.A., Ibadullaeva S.S., & Ermatov N.J. (2022). Results of studying the influence of risk factors on population health indicators.
10. Goh G.B., Chow W.C., Wang R., et al. Coffee, alcohol and other beverages in relation to cirrhosis mortality: the Singapore Chinese Health Study. *Hepatology*, 2014, 60(2), 661–669.
11. Kang Y.J., Zhou Z. Zinc prevention and treatment of alcoholic liver disease. *Molecular Aspects of Medicine*, 2005, 26(4–5), 391–404.
12. Ermatov N., Kholbekov B., Alimukhamedov D. The Role of Nutrition in Preventing Periodontosis during Summer: Seasonal Dietary Strategies for Oral Health. *American Journal of Medicine and Medical Sciences*, 2025, 15(5), 1403–1406. DOI: 10.5923/j.ajmms.20251505.18



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