



INDICATORS OF ACTIVITY OF SERUM AMINOTRANSFERASES IN PERSONS WITH INCREASED BODY WEIGHT

Hodiyeva O. I.

Assistant of the Department of Propaedeutics of Internal Diseases
Bukhara State Medical Institute Named After Abu Ali ibn Sino

Abstract

Recently, physicians in practice, for the most part, have begun to face the fact of an increase in the activity (mainly minimal) of serum transaminases: alanine - and aspartate aminotransferases (ALT, AST), often without any clinical signs of disease. Now interest in this biochemical phenomenon has grown to a disturbing level, primarily due to the scale of its distribution, which, at the same time, has led to its growing relevance.

This article is devoted to the study of the features of increasing the activity of ALT, AST of blood serum in individuals with different gradations of body weight gain (BMT). These areas are relatively young in science and often their importance remains underestimated by most specialists. The main goal is to study the parameters of the activity of ALT, AST of blood serum in individuals with different gradations of weight gain.

This work presents the results of studying the indicators of the activity of ALT, AST of blood serum in individuals with different gradations of increase in body weight.

Keywords: Serum aminotransferases, ALT, AST, increased body weight, transaminasemia, subtransaminosemia

Introduction

The surge in the problem of transaminasemia is still largely due to the growth of the technical potential for its detection. Recently, the study of the content of ALT and AST in the blood serum has been included in the list of mandatory screening routine tests. Of course, the facts of identifying the growth of ALT and AST activity have sharply increased, and at the same time, the problems of their competent interpretation.

According to modern concepts, ALT and AST indicators are considered as a biochemical indicator (4,7,12,13,14). Increased levels of transaminase activity in practice are called by different, but close in meaning terms. Even at the level of a cursory analysis of the glossary of phraseology, a circle of the most frequently used terms is immediately outlined, consisting mainly of the following: transaminasemia,





hypertransaminasemia, hyperenzymemia or hyperalatemia and hyperasatemia. In terms of meaning, they are all similar and therefore have equal chances for their regular use with any increase in the content of transaminases.

It should be emphasized that for these terms, not only the semantic closeness is common, but also a drawback, expressed in the limited information, in terms of exhaustive coverage of the level of transamisemia. Consequently, the forming impressions in the course of their application are hardly associated with the severity of the cytolysis syndrome (CS). In our opinion, the existing phraseological flaw unreasonably underestimates the informative possibility of transaminase indicators from the one that they actually deserve at that time. To overcome this shortcoming, the level of transaminasemia began to be divided into separate gradations with a clear delineation of their range. The innovation certainly increased the information capacity of transaminases. Thanks to this, the diagnostic value of transaminase indicators has become much more refined, hence even more informative.

Purpose of the work: to study the indicators of the activity of ALT, AST in blood serum in individuals with different gradations of body weight gain (BWG).

Materials and Methods

Under observation were 56 persons aged 26 to 46 years, of which 26 people were female. For inclusion in the survey group, the main conditions were the presence of high values of the body mass index (BMI) according to Quetelet: from 25 to 30 with low and moderate health risks, the absence of comorbid conditions associated with obesity. The study group did not include persons suffering from various liver pathologies, diabetes mellitus, muscular dystrophy, with a marker of viral hepatitis, taking various drugs (hormones, NSAIDs, antivirals) and alcoholic beverages in especially large quantities, pregnant women. On the eve of this study, all participants used modern diagnostic methods (ultrasound, in some cases, computed tomography, etc.) in order to exclude latent variants of the course of diseases. Also, the biochemical parameters of the functional potential of the liver were studied. All examined, depending on the type of BMG, were divided into the following groups: the first of them included persons with a central (android), and the second - with a peripheral (gynoid) type of body weight gain. The surveyed groups were representative in terms of BMI values, gender and age indicators.





Results

It was found that in 11 (20%) individuals with high BMI values, the levels of serum aminotransferases, especially ALT, were increased. Of the total number of 11 persons, 3 were females, and the remaining 8 were males. The level of increase in serum aminotransferases ranged from 1.5N to 2N, which corresponded to the minimum gradation of the generally accepted scale of transaminasemia. It should be pointed out that this name is far from professional in form and, moreover, each time it should be added to the term transaminasemia, which creates additional stylistic inconvenience. It's time to rename it with a term, already at the level of visual familiarity, which makes it possible to judge the severity of transaminasemia. Based on this, we propose our own version of the renaming of this level of transaminasemia. We consider it more appropriate to call it "subtransaminasemia" (ST), since at the level of empirical acquaintance with the term, a specific idea of the magnitude of the increase in the activity of ALT and AST begins to be associated.

Analysis of the structure of ST showed that in 7 persons the BMI category corresponded to moderate, and in the remaining 4 to low health risk. In 6 cases of ST with a moderate BMI gradation, there was a central type of obesity. Also, in 2 cases with a low BMI category, an android variant of obesity was noted. Of the total number of 11 cases of ST, 8 were in persons with central, only 3 with peripheral type of obesity. This fact once again emphasizes the relationship of ST with the type of obesity. In all 11 cases of ST, the ALT fraction was high. The AST fraction was higher than the control values only in 9 cases.

Thus, on the basis of the conducted studies, it should be concluded that in individuals with a high BMI value, fluctuating within the low and moderate health risk category, there is an increase in the activity of ALT and AST, in advance of the appearance of clinical and instrumental signs of liver diseases associated with the metabolic syndrome. . At the same time, the most obvious shifts are observed in the indicators of ALT activity. The increase in the activity of serum aminotransferases was to a certain extent dependent on the type of obesity and was much more pronounced in its central forms. The revealed fact allows us to recommend this biochemical phenomenon as an indicator indicating the onset of possible parenchymal structural transformations in the liver, developing as weight gain progresses.





Literature

1. Anderson, F. H., Lecheng, Z., Rock, N. R. and Yoshida, E. M. An assessment of the clinical utility of serum ALT and AST in chronic hepatitis C. *Hepatology Research* 18, 2000; 63–71.
2. Conigrave, K. M., Degenhardt, L. J., Whitfield, J. B., Saunders, J. B., Helander, A. and Tabakoff, B. CDT, GGT, and AST as markers of alcohol use: The WHO/ISBRA collaborative project. *Alcoholism: Clinical and Experimental Research* 26, 2002; 332–339.
3. Imperial, T. F., Said, A. T., Cummings, O. W. and Born, L. J. Need for validation of clinical decision aids: Use of the AST/ALT ratio in predicting cirrhosis in chronic hepatitis C. *The American Journal of Gastroenterology* 95, 2000; 2328–2332.
4. Giannini, E., Risso, D. and Testa, R. Transportability and reproducibility of the AST/ALT ratio in chronic hepatitis C patients. *The American Journal of Gastroenterology* 96, 2001; 918–919.
5. . Shagazatova B. Kh, Nazhmutdinova D. K, Kenzhaeva D. I. Economic aspects of diabetes mellitus. "Therapeutic Bulletin of Uzbekistan" -2019. 131-136c.
6. Aleksandrov, A. A. Recommendations on diabetes mellitus, prediabetes and cardiovascular diseases: comments / A. A. Aleksandrov // *Consilium medicum*. - 2019. - No. 11. - pp. 62-66.
7. Saidova L..B., Шодиева N. Shodieva.U. Frequency of risk factors of overweight and obesity in young people/ . *New Day in Medicine* 1 (33) 2021. 61-65b.
8. Urmanov Yu. M. Kholikov A. Yu. Changes in the nervous system in patients with type 2 diabetes mellitus., *New Day in Medicine* 1(33) 2021. 272-278c.
9. Nishanova D. F. On the prevalence of treatment of diabetic patients . *New Day in Medicine* 2(40) 2022 189-195c.
10. Ashurova HN.G., Каримова G. Karimova.K., Норов Ф.Х., Modern views on a problem of the gestational diabetes // *Doctors newsletter* 2018 -№ 1 P 94-98.
11. 9.Ashurova N. G., Komilzhonova O. O., Hypothyroidism and infertility in women etiopathogenetic factors of a combination of pathology. *News Day in Medicine* 2020 4(34) pp. 97-101.
12. Algorithms of specialized medical care for patients with diabetes mellitus / I. I. Dedov et al.. Moscow, 2018, 112 p. (in Russian)
13. Dilnavoz A. R. Assessment of the expression of endothelial dysfunction in chronic heart failure in female patients // *Assessment*. – 2021. – Т. 44. – №. 05.
14. Адизова Д. Р. СУРУНКАЛИ ЮРАК ЕТИШМОВЧИЛИГИ МАВЖУД БЕМОРЛАРДА ДЕПРЕССИВ БУЗИЛИШЛАРИНИНГ ТАРҚАЛИШИ





//ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2022. – Т. 3. – №. 1.

15. Адизова Д. Р. и др. Положительное влияние торсида при хронической сердечной недостаточности у женщин с артериальной гипертензией //ПРОТИВОРЕЧИЯ СОВРЕМЕННОЙ КАРДИОЛОГИИ: СПОРНЫЕ И НЕРЕШЕННЫЕ ВОПРОСЫ. – 2015. – С. 164-165.
16. Saidova L. B. et al. Optimization of medical care for patients with acute poisoning at the prehospital stage by emergency medical care team //Of XY international Research and practice conference England, London. – 2019. – С. 120-122.
17. Saidova L. B. et al. Improving the quality of rendering assistance with acute poisons of psychopharmacological preparations according to the Bukhara center of emergency medical assistance in the toxicology division of XY international Research and practice conference England //PROSPECTS OF WORLD SCIENCE-2019. – 2019. – С. 127.
18. Saidova L. B. et al. Improving the quality of rendering assistance with acute poisons of psychopharmacological preparations according to the Bukhara center of emergency medical assistance in the toxicology division of XY international Research and practice conference England //PROSPECTS OF WORLD SCIENCE-2019. – 2019. – С. 127.
19. Rakhmatovna T. D. HELICOBACTER PYLORI IN CHILDREN WITH GASTRIC DYSPEPSIA SYNDROME //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – Т. 2. – №. 3. – С. 155-159.
20. Rakhmatovna T. D. CLINICAL AND EPIDEMIOLOGICAL ASPECTS OF THE COURSE OF ENTEROBIOSIS IN SCHOOL-AGE CHILDREN //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – С. 95-98.
21. Шарипова Л. Х., Орзиева М. С. Частота и клинические формы проявления зрительной патологии у детей Бухарской области //Биология и интегративная медицина. – 2018. – №. 3. – С. 91-102.
22. Miralievna B. M. Community-Acquired Pneumonia in Adults: Practical Recommendations for Diagnosis, Treatment and Prevention //Spanish Journal of Innovation and Integrity. – 2022. – Т. 6. – С. 119-125.
23. Khodzhaeva D. I. Changes in the Vertebral Column and Thoracic Spinecells after Postponement of Mastoectomy //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 4. – С. 109-113.
24. Ilkhomovna K. D. Modern Look of Facial Skin Cancer //Барқарорлик ва Етакчи Тадқиқотлар онлайн илмий журнали. – 2021. – Т. 1. – №. 1. – С. 85-89.





25. Ilkhomovna K. D. Morphological Features of Tumor in Different Treatment Options for Patients with Locally Advanced Breast Cancer //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 2. – С. 4-5.
26. Khodjayeva D. I. MORPHOLOGY OF IDIOPATHIC SCOLIOSIS BASED ON SEGMENT BY SEGMENT ASSESSMENT OF SPINAL COLUMN DEFORMITY //Scientific progress. – 2022. – Т. 3. – №. 1. – С. 208-215.
27. Ходжаева Д. И. СОВРЕМЕННЫЕ ВОЗМОЖНОСТИ УЛЬТРАЗВУКОВОЙ ДИАГНОСТИКИ ПРИ РАКЕ КОЖИ ЛИЦА //Жизнеобеспечение при критических состояниях. – 2019. – С. 111-112.
28. Aslonov S. G. et al. Modern Approaches to Oropharyngeal Cancer Therapy //International Journal of Discoveries and Innovations in Applied Sciences. – 2021. – Т. 1. – №. 3. – С. 38-39.
29. Khodjaeva D. I. MAGNETIC-RESONANCE IMAGING IN THE DIAGNOSIS OF BREAST CANCER AND ITS METASTASIS TO THE SPINAL COLUMN //Scientific progress. – 2021. – Т. 2. – №. 6. – С. 540-547.
30. Ilkhomovna K. D. MANIFESTATIONS OF POST-MASTECTOMY SYNDROME, PATHOLOGY OF THE BRACHIAL NEUROVASCULAR BUNDLE IN CLINICAL MANIFESTATIONS //Innovative Society: Problems, Analysis and Development Prospects. – 2022. – С. 225-229.
31. Sultonova N. A. Treatment of hypercoagulable conditions in women with miscarriage in early gestation //Asian Journal of Multidimensional Research (AJMR). – 2020. – Т. 9. – №. 12. – С. 13-16.
32. Султонова Н. А. ИНДИВИДУАЛЬНЫЙ ПОДХОД К ПРОГНОЗИРОВАНИЮ САМОПРОИЗВОЛЬНЫХ ВЫКИДЫШЕЙ У ЖЕНЩИН ДО 24 НЕДЕЛЬ ГЕСТАЦИИ //Современные вызовы для медицинского образования и их решения. – 2021. – Т. 406.
33. Султонова Н. А., Негматуллаева М. Н. Значимость Применения Витамина И Минеральной Комплексной Терапии В Профилактике Невынашивания Беременности //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 388-392
34. Kurbanovna S. I. Functioning of the Immune System in Children, After Surgical Correction of Congenital Heart Defects //European Journal of Life Safety and Stability (2660-9630). – 2021. – Т. 12. – С. 439-446.
35. Харибова Е. А., Тешаев Ш. Ж. Морфофункциональные особенности тканевой организации энтероэндокринных клеток в возрастном аспекте //Проблемы биологии и медицины. – 2020. – №. 2. – С. 168-173.





36. Харибова Е. А. Особенности морфологии нейрональных ансамблей в тройничном узле человека //Морфология. – 2011. – Т. 140. – №. 5. – С. 123-124.
37. Махмудов З. А., Нечай В. В., Харибова Е. А. Железисто-лимфоидные взаимоотношения в стенке илеоцекального перехода на разных этапах постнатального онтогенеза //Морфология. – 2008. – Т. 133. – №. 2. – С. 85.
38. Адизова Д. Р., Адизова С. Р., Иброхимова Д. Б. Место депрессивных расстройств у пациенток с хронической сердечной недостаточностью //Биология и интегративная медицина. – 2021. – №. 4 (51). – С. 79-90.
39. Адизова Д. Р., Джураева Н. О., Халилова Ф. А. ROLE OF DEPRESSION AS A RISK FACTOR IN THE COURSE OF CHRONIC HEART FAILURE //Новый день в медицине. – 2019. – №. 4. – С. 15-18.
40. Шарипова Л. Х., Орзиева М. С. Состояние функции внешнего дыхания и сердечно-сосудистой системы у здоровых и у детей с нарушениями зрения //Биология и интегративная медицина. – 2018. – №. 5. – С. 23-31.
41. Шарипова Л. Х., Орзиева М. С. Частота и клинические формы проявления зрительной патологии у детей Бухарской области //Биология и интегративная медицина. – 2018. – №. 3. – С. 91-102.
42. Шарипова Л. Х., Орзиева М. С. Отношение родителей на наличие нарушения зрения у детей //Биология и интегративная медицина. – 2018. – №. 5. – С. 16-22.
43. Rakhmatovna T. D. Enterobiosis in Children Current Diagnostic Problems //European Multidisciplinary Journal of Modern Science. – 2022. – Т. 7. – С. 89-95.
44. Ibragimovna K. O. Competence of Quantitative Indicators of the Leading Clinical Signs of Cholestasis in Differentiation of its Grades //Indonesian Journal of Innovation Studies. – 2022. – Т. 18.

