

A NEW APPROACH TO THE TREATMENT AND PREVENTION OF SYPHILITIS INFECTION

Ravshanova D.T.

*Assistant at the Department of Skin and Venereal Diseases,
Samarkand State Medical University*

Annotation: in this article, an attempt was made to reveal the main reasons for the development of a method for indicating molecular markers of organ lesions in syphilitic infection based on the chromato-mass spectrometric analysis of biological fluids and tissues of the body of a patient with syphilis. To carry out scientific work, the author conducted a study of biological material (blood, cerebrospinal fluid, urine) obtained from 152 patients with syphilis aged 15 to 60 years (men 45.5 women - 55.5%) using GC-MS analysis methods. The problem in question is still little studied, therefore, requires more thorough research.

Key words: molecular markers, syphilitic infection, spectrometric analysis.

Introduction: There has been an increase in the number of sexually transmitted infections (STIs) worldwide. Among all STIs, syphilis is the most significant. According to the bodies of Rospotrebnadzor, the incidence of syphilis in 2001 amounted to 240 thousand cases in the Russian Federation. The epidemiological situation in the country remains extremely tense. Of particular concern is the increase in the number of latent forms of syphilis and, as a result, the increase in the frequency of cases of syphilitic lesions of the nervous system and internal organs. Early latent syphilis began to be registered much more often than late and unaccounted for and accounts for up to 60-96% of all patients with a latent form of syphilis. The proportion of early latent syphilis in the Russian Federation increased from 1997 to 2007 by 1.2 times. The frequency of registration of late latent syphilis decreased by 6 times.

The problem of early diagnosis of syphilis and its organ lesions has always been acute, since in most cases the syphilitic process in the central nervous system is asymptomatic and does not have clear clinical signs.

Medicine of the 21st century is molecular medicine. The main postulate of molecular medicine is the position that for each disease, each pathological manifestation of the body, there is a molecular target that can be used both for diagnosing a disease and for medicinal effects. The use of modern technical and instrumental developments significantly expands the possibilities of molecular diagnostics. Methods of molecular diagnostics and prediction of the course of syphilitic infection based on modern technologies and, in particular, gas chromatography and

mass spectrometry (GC-MS) of biological material from patients with syphilis can solve complex problems of diagnosing latent forms of syphilis and its organ lesions.

Aim: was to develop a method for indicating molecular markers of organ lesions in syphilitic infection based on chromatomass spectrometric analysis of biological fluids and tissues of the body of a patient with syphilis.

Materials and methods. Biological material (blood, cerebrospinal fluid, urine) obtained from 152 patients with syphilis aged 15 to 60 years (men 45.5 women - 55.5%) was studied using GC-MS methods. Figure 1.

Results and discussion: GC-MS analysis of peripheral blood was performed in 145 patients, GC-MS analysis of urine — in 72 patients, GC-MS analysis of cerebrospinal fluid — in 17 patients. Out of 152 patients, positive serological tests (RPHA, RP, RIF, ELISA) were found in 121 patients, negative — in 31 patients. Figure

Lesions of the nervous system (neurosyphilis) were detected in 17 patients (11.2%); lesions of the genitourinary system (cystitis, urethritis, pyelonephritis) - in 16 patients (10.5%); lesions of the skin and mucous membranes - in 25 patients (16.3%). Rice. 3.

As a control of chromatographic research methods, the chromatographic characteristics of biological fluids were studied in other pathological conditions: surgical sepsis (27 patients), tuberculosis (21 patients), liver echinococcosis (15 patients).

The diagnostic capabilities of GC-MS analysis were used in three areas: 1) analysis of biochemical changes in metabolism in the blood serum of patients with the determination of lipid, carbohydrate and amino acid components; 2) indication of molecular markers of organ damage, in particular, markers of damage to the nervous system (brain), kidneys and integument; 3) indication of signal compounds for the implementation of "cooperative sensitivity" by microbes - lactones, quinolones and furan esters of boron.

During the study, molecular markers of organ lesions (CNS, kidneys, skin and mucous membranes) in syphilis were determined. It has been shown that the information content of GC-MS studies of molecular markers of organ lesions is higher compared to the generally accepted clinical and laboratory indicators of syphilis. For the first time, a comparative analysis of the chromatographic characteristics of biological fluids in patients with syphilis and patients with other infectious and parasitic pathologies (tuberculosis, surgical sepsis, echinococcosis, etc.) was carried out. The result of the study was the development of "Method for laboratory diagnosis of changes in the central nervous system in syphilis" and "Method for laboratory diagnosis of infectious pathology of the kidneys in syphilis"

Conclusions: The developed criteria for GC-MS indication of molecular markers of organ lesions have a high level of diagnostic sensitivity, diagnostic specificity, positive and negative diagnostic predictability and can be used as laboratory diagnostic criteria for syphilis.

Literature:

1. Абдуллаев Х., Толибов М. Allergodermatozlar bilan bog'liq bo'lgan vulgar acneni kompleks davolash Samaraligini o'rganish //Журнал гепатогастроэнтерологических исследований. – 2021. – Т. 2. – №. 3.2. – С. 73-74.
2. Пляевна Р. У. et al. DERMATOSCOPIC PAINTING SOME COMMON DERMATOSES //World scientific research journal. – 2023. – Т. 16. – №. 2. – С. 107-120.
3. Пляевна Р. У. et al. MODERN TRENDS IN TREATMENT SICK MICROSPORIA //World scientific research journal. – 2023. – Т. 16. – №. 2. – С. 98-106.
4. Kholikovich E. S. et al. APPLICATION OF" BETASALIK" OINTMENT IN THE THERAPY OF CHRONIC INFLAMMATORY AND ALLERGIC DERMATOSES //Journal of new century innovations. – 2023. – Т. 31. – №. 3. – С. 56-62.
5. Jo'raqulovich U. A. et al. ADVANTAN FOYDALANISH ALLERGIY VA YALIGLI DERMATOZLARNI TASHQI TERAPIYA //World scientific research journal. – 2023. – Т. 16. – №. 2. – С. 56-66.
6. Abdusalamovich R. I. et al. AZELAY KISLOTA PAYLASHMALARI-PAPULOS-PUSTULOZ VA ROSE AKNELARINI DAVOLASH //World scientific research journal. – 2023. – Т. 16. – №. 2. – С. 73-79.
7. Abdullaev X., Tolibov M. Allergodermatozlar bilan bog'liq bo'lgan vulgar akneni kompleks davolash Samaraligini o'rganish //Jurnal gepatogastroenterologik issledovaniy. – 2021. – Т. 2. – №. 3.2. – С. 73-74.
8. Tolibov M. M. et al. SEVRAN USAGE IN THE MANAGEMENT OF PAPULOSQUAMOUS DERMATOSES //RESEARCH AND EDUCATION. – 2023. – Т. 2. – №. 6. – С. 112-119.
9. Tillaqobilov I. B., Abdullaev X. D., qizi Subxonova Z. S. PSORIAZNI DAVOLASHDA MONOKLONAL ANTIJALARNING SAMARALILIGINI BAHOLANISH //Educational Research in Universal Sciences. – 2024. – Т. 3. – №. 1. – С. 310-313.
10. Tillaqobilov I. B., Abdullaev X. D., qizi Subxonova Z. S. EKSIMER LAZERINING (EXILITE MU) DERMATOLOGIYADA KLINIK QO'LLANILISHI //Educational Research in Universal Sciences. – 2024. – Т. 3. – №. 1. – С. 295-299.

11. Utayev A. J., ugli Toshev S. U., Abdullaev X. D. EVALUATING THE EFFICACY OF DERMOSCOPIC METHOD IN DISTINGUISHING BETWEEN MYCOSIS AND ALOPECIA IN PEDIATRIC PATIENTS //Modern Scientific Research International Scientific Journal. – 2024. – Т. 2. – №. 1. – С. 133-138.
12. Utayev A. J., ugli Toshev S. U., Abdullaev X. D. EVALUATION OF THE EFFECTIVENESS OF FACIAL ATOPIC DERMATITIS TREATMENT METHODS //Modern Scientific Research International Scientific Journal. – 2024. – Т. 2. – №. 1. – С. 139-144.
13. Toshev S. U. et al. MOLECULAR SIGNIFIERS IN SYPHILITIC INFECTION AND THEIR ROLE IN MORBIDITY RATES //RESEARCH AND EDUCATION. – 2023. – Т. 2. – №. 6. – С. 101-111.
14. Ахмедова М. М., Абдуллаев Д. М., Тошев С. У. ИСПОЛЬЗОВАНИЯ МАЗЬИКУРАЛИМУС ПРИ ЛЕЧЕНИИ КРАСНОГО ПЛОСКОГО ЛИШАЯ //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – Т. 2. – №. 3. – С. 191-193.
15. Тошев С. У., Аширов З. Ф., Абдуллаев Х. Д. ЛЕЧЕНИЕ ВИТИЛИГО 308-НМ ЭКСИМЕРНЫМ ЛАЗЕРОМ //Актуальные аспекты медицинской деятельности. – 2021. – С. 240-243.
16. Hikmatovich I. N., Xolmatovich J. A., Axtamovna A. F. Applications of Elidel for Lichen Plane //Texas Journal of Medical Science. – 2022. – Т. 8. – С. 113-115.
17. Islamov N. H., Jalilov A. X., Achilova F. A. IJTIMOIY-GIGIENIK TURSHIY SHARTLARNING O ‘QUVCHILAR SALOMATLIGIGA TA’SIRI //Educational Research in Universal Sciences. – 2023. – Т. 2. – №. 14. – С. 314-318.
18. Islamov N. H. et al. PRINCIPLES OF TREATMENT OF LARYNGOTRACHEITIS IN CHILDREN //Modern Scientific Research International Scientific Journal. – 2023. – Т. 1. – №. 7. – С. 136-142.
19. Islamov N. H., Jalilov A. X., Achilova F. A. DEVELOPMENT OF PAPILOMAVIRUS INFECTION IN MEN //Modern Scientific Research International Scientific Journal. – 2023. – Т. 1. – №. 7. – С. 128-135.
20. Hikmatovich I. N., Temirovich E. R., Muradovich Y. M. O'SMIRLARDA YUZAKI PYODERMANI DAVOLASHDA TOPIKAL TERAPIYA //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – С. 355-358.