SCHOLASTIC:
Journal of Natural and Medical Education
Volume 2 Issue 6, Year 2023 ISSN: 2835-303X
https://univerpubl.com/index.php/scholastic

TORCH-Complex

Sarkisova Victoria Vladimirovna, Jamalova Feruza Abdusalamovna
Lecturer of Samarkand State Medical University

Muradova Emma Vladimirovna
PHD, Lecturer of Samarkand State Medical University

Shavazi Ramiz Nuralievich
Student of Samarkand State Medical University

Article Information

Received: April 19, 2023
Accepted: May 20, 2023
Published: June 21, 2023

Keywords: *jaundice, petechiae, splenomegaly.*

ABSTRACT

TORCH-complex refers to congenital infections. It is the intrauterine transmission of these infections to the fetus that causes numerous complications after the birth of a child. Risk factors include missed immunization and contracting sexually transmitted infections during pregnancy.

The timing of maternal infection is a key epidemiological factor, since fetal damage usually depends on gestational age. During the entire period of intrauterine development, there is a risk of infection of the fetus with various kinds of infections. The infection can also be acquired during neonatal life: during childbirth or in the postpartum period. Among the consequences of the infectious process there are abortion, stillbirth, congenital malformations, premature birth, intrauterine growth retardation. Clinical manifestations of congenital infections depend on many factors independent of each other, such as the influence of the pathogen on organogenesis, the time of infection depending on gestational age, the presence or absence of maternal immunity and the path of infection. Abortions or stillbirths are more likely to occur when the mother is infected in the early stages of pregnancy. The cause of premature birth is not entirely clear, but there is evidence of a connection between this pathology and intrauterine growth delay caused by a decrease in the number of cells of developing organs. Viral infections of the fetus are likely when the mother is infected with a known virus that can be transmitted vertically, as well as when pathologies are detected during routine ultrasound controls. In newborns, common clinical data indicating acute congenital infection are: jaundice, petechiae or splenomegaly at birth or immediately after delivery. A person becomes infected with toxoplasmosis by eating raw or insufficiently cooked meat with parasite cysts or by eating fruits and vegetables contaminated with T. gondii oocysts from the feces of infected cats. Transmission of the parasite from the mother to the child can occur only with the primary infection of the mother during pregnancy, and its frequency gradually increases with the progress of pregnancy. The consequences of fetal

infection are diverse, ranging from miscarriage to the birth of a child with various clinical or asymptomatic manifestations. The most common are chorioretinitis, blindness, hydrocephalus, intracerebral anesthesia, epilepsy, mental retardation or delayed psychomotor development. The overall risk of vertical transmission of the parasite in maternal infection is about 40%, but is significantly reduced with the introduction of spiramycin. In the last two to three weeks of pregnancy, the risk reaches 90%. Congenital syphilis is a transplacental infection, the causative agent of which is Treponema pallidum. This infection can affect the fetus at any stage of pregnancy, and the risk of infection varies depending on the stage of the disease in a pregnant woman. The damage caused to the fetus is associated with the development of its immune response. This process is most active after 16-20 weeks of pregnancy. The diagnosis of this pathology is complex and is based on the analysis of the epidemiological, serological and clinical binomial of mother and child.

The most common manifestation is hepatosplenomegaly associated with the presence of anemia, thrombocytopenia, leukocytosis or leukopenia. Hemolytic anemia occurs with a negative Coombs test, passes slowly and can persist for several weeks; this is due to the formation of immune complexes, cryoglobulinemia and macroglobulinemia. Also, the most frequent clinical manifestations are damage to the skin, mucous membrane and bone changes. Chronic infection with rubella leads to apoptosis and tissue necrosis, which can lead to miscarriage, stillbirth due to the lack of an inflammatory response and inhibition of cell reproduction in the developing fetus. The most common defects in this syndrome are cardiac abnormalities. Other manifestations are intrauterine growth retardation, microcephaly, low birth weight, congenital cataract, iris hypoplasia, microphthalmia and retinopathy. Congenital rubella is a progressive disease due to the persistence of viral infection and disorders of the immune response, which can progress up to two years of life. Between 50 and 70 percent of babies with congenital rubella infection may appear normal at birth.

In addition, transient changes such as hepatosplenomegaly, meningoencephalitis, thrombocytopenia with or without purpura can be identified. Studies with cytomegalovirus have shown that transmission of infection from mother to fetus occurs both with primary infection (30-40%) and with repeated infection or relapse (1-2%), which indicates that pre-existing maternal immunity does not prevent intrauterine transmission or the development of the disease.

The incidence of congenital cytomegalovirus infection is high both in populations with low and high seroprevalence of the population. However, the most severe outcome is more common with maternal infection that occurred for the first time, which is usually found in populations with lower seroprevalence. 10-15% of congenital infected children have symptoms of the disease at birth, of which 35% develop chronic heart failure, up to two thirds have a neurological defect and 4% die during the neonatal period. Recurrent herpes simplex virus infections are the most common clinical form of manifestation during pregnancy, and two thirds of them are asymptomatic or have implicit symptoms of herpes infection. Infected newborns have dermatological defects: scars, rash, hyper- or hypopigmentation; ophthalmological disorders: microphthalmia, chorioretinitis, optic nerve atrophy; neurological disorders: intracranial decontamination, microcephaly and encephalomalacia. On the 10-12 day of life, lesions of many systems and organs may appear, including the central nervous system, lungs, liver, adrenal glands, skin, eyes and mouth. In severe forms of infection, viral sepsis occurs, accompanied by respiratory failure, liver failure and disseminated intravascular coagulation. TORCH infection shows a different prevalence among the seasons of the year. This was proved in a study by Lu Chen et al. (2019) [4]. The purpose of this study was to find out the seasonal effects on the rate of infection. IgM-positive is an indicator of primary infection, so its prevalence was much lower than the prevalence of IgG, reflecting past exposure to the pathogen or vaccination. To find out whether the TORCH-primary infection in patients was really different among the four seasons, a

statistical analysis was conducted in which the TORCH-IdM results were collected over a continuous 12-month period. Positive IgM scores for rubella virus, cytomegalovirus, and herpes simplex virus type 1 differed statistically over four seasons. More specifically, anti-IgM in rubella virus and herpes simplex virus type 1 showed higher prevalence in autumn and winter, while anti-IgM in cytomegalovirus had the highest prevalence in summer. Thus, TORCH infections are practically harmless for healthy adults, but they are very dangerous for pregnant women, as they have a negative impact on fetal development. In this regard, the analysis for torchinfections is a very important analysis during pregnancy, which is highly recommended for both pregnant women and women just planning to conceive. Information about the seasonality of TORCH infections can help in strengthening prevention measures for these diseases.

References:

1. Sarkisova V., Xegay R., Numonova A. ENDOCRINE CONTROL OF THE DIGESTION PROCESS. GASTROINTESTINAL ENDOCRINE CELLS //Science and innovation. – 2022. – T. 1. – №. D8. – C. 582-586.
2. Sarkisova V. ASPECTS OF THE STATE OF THE AUTONOMIC NERVOUS SYSTEM IN HYPOXIA //Science and innovation. – 2022. – T. 1. – №. D8. – C. 977-982.
3. Vladimirovna S. V. Epidemiology, Theories Of The Development, Conservative And Operative Treatment Of The Endometriosis //The Peerian Journal. – 2023. – T. 15. – C. 84-93.
4. Vladimirovna S. V. About the Causes of Endometrial Hyperplasia and Forms of Endometrial Hyperplasia //Global Scientific Review. – 2023. – T. 12. – C. 25-32.
5. Саркисова В., Абдурахманова К. Астено-вегетативные нарушения, оценка качества жизни у женщин климактерического возраста с гиперпластическими процессами в матке //Журнал вестник врача. – 2014. – Т. 1. – №. 01. – С. 163-166.
6. Sarkisova V., Xegay R. CAUSES, DIAGNOSIS, CONSERVATIVE AND OPERATIVE TREATMENT OF UTERINE MYOMA //Science and innovation. – 2022. – T. 1. – №. D8. – C. 198-203.
7. Саркисова В. В. Патогенетические отношения артериальной гипертензии и сопротивления инсулина //IQRO. – 2023. – Т. 2. – №. 1. – С. 727-731.
8. Vladimirovna S. V. PATHOGENETIC RELATIONSHIPS OF ARTERIAL HYPERTENSION AND INSULIN RESISTANCE //IQRO. – 2023. – T. 2. – №. 1. – C. 685-691.
9. Sarkisova V., Regina X. РОЛЬ БРАДИКИНИНА В ПРОТЕКАНИИ ОСНОВНЫХ ЖИЗНЕННЫХ ПРОЦЕССОВ //Science and innovation. – 2022. – T. 1. – №. D8. – C. 587-593.
10. Sarkisova V., Numonova A., Xegay R. АНТИБИОТИКОРЕЗИСТЕНТНОСТЬ ИЛИ БОРЬБА С ГЛОБАЛЬНОЙ УГРОЗОЙ XXI ВЕКА //Science and innovation. – 2022. – T. 1. – №. D8. – C. 232-241.
11. Sarkisova V., Numonova A., Xegay R. АСПЕКТЫ СОСТОЯНИЯ ВЕГЕТАТИВНОЙ НЕРВНОЙ СИСТЕМЫ ПРИ ГИПОКСИИ //Science and innovation. – 2022. – T. 1. – №. D8. – C. 228-231.
12. Джуманов Б. и др. Применение инструментальных методов исследование в диагностике острого аппендицита у беременных //Журнал проблемы биологии и медицины. – 2014. – №. 1 (77). – С. 9-12.

13. Саркисова В., Джуманов Б., Исроилова Г. Анализ репродуктивного и соматического здоровья женщин, госпитализированных по поводу гиперплазии эндометрия и маточных кровотечений //Журнал вестник врача. – 2014. – Т. 1. – №. 01. – С. 169-170.
14. Саркисова В., Абдурахманова К. Роль гормональных препаратов в терапии гиперпластических процессов эндометрия и в частности при миоме матки //Журнал вестник врача. – 2014. – Т. 1. – №. 01. – С. 167-168.
15. Sarkisova V. et al. UTERINE ARTERY EMBOLIZATION AS A METHOD OF TREATMENT OF UTERINE FIBROIDS //Science and innovation. – 2023. – Т. 2. – №. D3. – С. 115-121.
16. Vladimirovna S. V. ABOUT THE CAUSES OF ENDOMETRIAL HYPERPLASIA AND FORMS OF ENDOMETRIAL HYPERPLASIA //ResearchJet Journal of Analysis and Inventions. – 2022. – Т. 3. – №. 11. – С. 66-72.
17. Vladimirovna S. V. et al. PREGNANCY WITH CONGENITAL HEART DISEASE //Science and innovation. – 2023. – Т. 2. – №. D4. – С. 127-136.
18. Sarkisova V., Alvi I. THE PROBLEM OF COMORBIDITY OF AFFECTIVE DISORDERS AND PERSONALITY DISORDERS //Science and innovation. – 2023. – Т. 2. – №. D5. – С. 170-177.
19. Sarkisova V. et al. BIPOLAR AFFECTIVE DISORDER (BAR) //Science and innovation. – 2023. – Т. 2. – №. D5. – С. 165-169.
20. Boltayev K. S., Jamalova F. A., Shodiyeva D. G. MIKOZLARGA MIKROBIOLOGIK MIKROSKOPIK TASHXIS QO ‘YISHNING O ‘ZIGA XOS XUSUSIYATLARI. GOLDEN BRAIN, 1 (3), 35–40. – 2023.
21. Shernazarov, F. (2023). Hymoritis symptoms, treatment, methods of folk medicine, prevention. Science and innovation, 2(D1), 72-78.
22. Жамалова Ф. А. и др. Цинк И Заживление Ран: Обзор Физиологии И Клинического Применения //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 6. – С. 33-40.
23. Boltayev K. S. et al. MIKOZLARGA MIKROBIOLOGIK MIKROSKOPIK TASHXIS QO ‘YISHNING O ‘ZIGA XOS XUSUSIYATLARI //GOLDEN BRAIN. – 2023. – Т. 1. – №. 3. – С. 35-40.
24. Jamalova F. A. et al. BACILLUS THURINGIENSIS BAKTERIYALAR ASOSIDA YARATILGAN BIOPREPARATLAR //GOLDEN BRAIN. – 2023. – Т. 1. – №. 3. – С. 23-27.
25. Давлятова М. А. и др. ЦИТОМЕГАЛОВИРУСНАЯ ИНФЕКЦИЯ В АКУШЕРСТВЕ И ГИНЕКОЛОГИИ //Евразийский журнал медицинских и естественных наук. – 2023. – Т. 3. – №. 2 Part 2. – С. 26-35.
26. Тухтаназарова Ш. И., Маллаходжаев А. А., Нурмурадов И. И. РОЛЬ СЕЛЕНА В СТИМУЛЯЦИИ ПРОТИВООПУХОЛЕВОГО ИММУНИТЕТА //European Journal of Interdisciplinary Research and Development. – 2022. – Т. 8. – С. 135-148.
27. Giyosovna S. D., Abdusalomovna J. F. BACILLUS AVLODIGA MANSUB BAKTERIYALARNING ANTIMIKROB VA ANTOGONISTIK XUSUSIYATLARI //Scientific Impulse. – 2023. – Т. 1. – №. 6. – С. 1852-1858.
28. Вахидова А. М., ЭХИНОКОККОЗА Б. Э. В. Р. ОСЛОЖНЕННОГО ПЕЦИЛОМИКОЗОМ СРЕДИ НАСЕЛЕНИЯ И ДОМАШНИХ ЖИВОТНЫХ ГОРОДА

САМАРКАНДА //ИННОВАЦИОННЫЕ ПРОЦЕССЫ В НАУКЕ, ЭКОНОМИКЕ И ОБРАЗОВАНИИ: ТЕОРИЯ, МЕТОДОЛОГИЯ, ПРАКТИКА. – 2017. – С. 202-230.

29. Shernazarov, F. (2023). Hymoritis symptoms, treatment, methods of folk medicine, prevention. Science and innovation, 2(D1), 72-78.