Analysis, status verification and transmission of HIV/AIDS of children of Karaganda area (epidemiology, clinical presentation, diagnostics and rehabilitation)

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Abstract

We analyzed STATUS VERIFICATION AND TRANSMISSION OF HIV / AIDS by children with AIDS from 2010-2015. In Karaganda region for the entire period, based on data from the Regional Center for Prevention and Struggle for Survival from AIDS, registered cases of HIV-infected mothers who gave birth to a total of 395 children with HIV was documented despite activities directed to reach a successful prevention of HIV transmission from the mother to child. The diagnosis of HIV-infection's in children is 30 (9.3%), 61babies, transmitted from women with HIV infection.

Keywords: HIV-infection, vertical transmission, children, epidemiology, clinical presentation, diagnostics and rehabilitation.

Introduction

HIV (human immunodeficiency virus) is the smallest virus that causes HIV infection. Penetration of the virus (HIV) into the human body causes weakening and destruction of the immune system, which provides protection of the human body from diseases, identifying and destroying tumor cells and pathogens.

Acquired Immune Deficiency Syndrome (AIDS) is a condition that develops against the background of HIV infection and is characterized by a drop in the number of CD4 lymphocytes, multiple opportunistic infections, non-infectious and neoplastic diseases. AIDS is the terminal stage of HIV infection.

At present, HIV-infection has acquired a pandemic scale and is present in many countries of the world. AIDS appeared as an independent disease (since 1981) in the world. According to WHO estimates, officially there are 78 million HIV-infected persons in this neighborhood, from these; 30 million have died of AIDS. Despite preventive measures, there is an increase in HIV cases and mortality from HIV infection. HIV / AIDS continue to increase, causing damage to the health of people and economy at large. A modern transmission of HIV infection has appeared, thus increasing heterosexual transmission of HIV infection among heterosexuals, its intensive involvement in women and risk of its transfer to newborn children.

Children with HIV / AIDS in this neighborhood consists 90% of cases with connection to perinatal
infection which happens at the time of pregnancy, during the period of childbirth, as well as other means.

HIV-infection develops more often among the poor and in areas of little or no education on HIV. Also in such areas lacking medical assistance to people infected with HIV. Thus, the importance of medical aid cannot be overemphasized as it leads to a decrease in morbidity. Thus, in this country, the growth of viral transmission frequency is something less than 2%. Its developmental figure reaches 25-48%. This answers something in world-scale of HIV and AIDS infection from the leading causes of morbidity to child mortality.

The aim of the study. It was to analyze the state of the vertical transmission of HIV / AIDS in children Karaganda region and the prevention and fight against AIDS in the regional center in 2010-2015.

Materials and Methods

The objects of study were HIV - seropositive mothers and their children born in the Karaganda region in the period from 1997-2015. Diagnosis of HIV infection among pregnant women and their newborns verified by ELISA and immunoblotting in PCR. The analysis of the outcomes of pregnancy and childbirth, the coverage and preventive treatment of pregnant women, women in childbirth and newborn babies.

Results and Discussion

The development of the epidemic process of HIV infection in Kazakhstan is in the concentrated stage of the epidemic, the spread of HIV infection is observed mainly in certain population groups that are vulnerable to infection.

High prevalence of unsafe injecting practices when using drugs in the world with a risky sexual behavior, including low condom use among the general population and vulnerable groups of population (hereinafter - VGP) rapid ability for spread of HIV.

To monitor the HIV epidemic in Kazakhstan, several approaches are used. One of the main methods of epidemiological surveillance is registration of HIV cases detected in voluntary testing with conducting counseling, including on an anonymous basis; Testing for HIV, compulsory medical care according to clinical indications (including testing of pregnant women) or epidemiological indications, as well as routine testing of certain contingents, including conscripts, prisoners and health workers.

Eastern Europe and Central Asia are currently experiencing the rapid growth of new HIV infections. The most affected are HIV-Countries are Russia, where the situation is recognized as "stable worsening "and Ukraine. In Russia, there is a tendency to increase the frequency and of the sexual mode of transmission in the absence of signs of stabilization among drug users, which is a consequence of the minimal presence of preventive programs aimed at injecting drug users.

In general, in the Eastern region, most countries have similar trends in the epidemic. Feminization is noted (increasing the proportion of women) and gradual increase in the proportion of the sexual way of transmission. The development of the epidemic process of HIV infection in Kazakhstan is in a concentrated stage of the epidemic, which indicates the spread of HIV infection in certain vulnerable to infection groups of the population.

Characteristic manifestations of the epidemic process of HIV infection in the Republic of Kazakhstan are territorial unevenness, high incidence of drug users, eleven primary involvements of young men in the epidemic, parenteral route of transmission since the beginning of the epidemic, with subsequent involvement sexual way of infection.

In the Republic of Kazakhstan, there was a decrease in cases of HIV infection with an injection transmission in the use of drugs, which is associated with actively taken measures in the field of HIV prevention among IDUs and the impact of programs harm reduction in the last 15 years. Harm Reduction Programs continue to remain relevant in the the Republic of Kazakhstan, with a shift in the focus of only on the IDU themselves, but also on their sexual partners. HIV infection penetrates into
different social age groups of the population. The main contingent of the infected is non-working people, among whom most of them are injecting drugs belonging to a less well-off social category population and prisoners. However, the share of employees and employees is growing registered with HIV-infected people, which is explained by the structure of transmission paths.

The frequency of detection of HIV infection among pregnant women is increasing since 2005, increasing by 0.01% annually, which increases the potential for mother-to-child transmission of HIV. The prevalence of HIV infection among pregnant women is 0.1% (indicator of HIV prevalence, infection among the general population).

Gradually, the age structure of HIV-infected people is changing. In dynamics there is a shift towards registration of people of older age groups. In 2011, the highest number of cases occurred in the age group of 30-39 years. In recent years, the number of people identified by clinical indications, including at the stage of AIDS, which, taking into account the characteristics clinical course of HIV infection and duration of asymptomatic period, is typical for people of older ages. Analysis of the incidence of HIV situation among women, pregnant women and infants born to these women's categories in the Republic of Kazakhstan, has shown that the current stage of the epidemic in the country and in the region was characterized by infection with vulnerability to HIV infection, groups and integration of HIV in other more advantaged groups. In recent years (since 2006) in the field, as well as for the whole of Kazakhstan there was a tendency for the growth of sexual transmission of HIV, which contributed to the implementation of the latter in the general population in the area.

In the 2002 there was a trend increase in the share of women in the epidemic process of HIV infection on the area from 16.7% in 1996 to 47.6% (p <0,05) in 2013, while the share of men decreased from 83.3% in 1998 to 52.4% in 2015. Enhancing the involvement of women in the epidemic process of HIV infection associated with an increase in sexual transmission from 6.5% in 1998 to 43.1% (p <0,05) in 2002 and the continued prevalence of persistent sexual transmission observed from year to year, as a result of the region by the end of 2015, the predominant mode of transmission is sexual to 70.6% (2012 - 64.9%), parenteral amounted to - 22.8% (2012 - 30.1%), which led for recent years for increased involvement in the epidemic process of HIV infection of women.

It should be noted that the share of rural residents in structure of identified cases. This may be due to an increase in internal migration of people in search of better paid work: from villages to cities, from some regions - in large cities and capitals. The ratio of urban and rural PLHIV in 2011 year was 3:1. The situation in the Republic of Kazakhstan is affected by external migration and the proximity of the borders of Russia and China. The share of foreign citizens in the structure of detected cases averages 6%.

In Kazakhstan, since the first case of HIV infection was discovered in 1987 and as of 01.01.2012, 17 763 cases of HIV infection were registered, among them - the diagnosis of AIDS is exposed to 1480 people living with HIV. The number of people infected with HIV places of detention, was 4696 (more than 26% of the number of identified people living with HIV).

The period from 1987 to 1995 was characterized by stable and very low indicators of morbidity and disease. Since 1996, the rapid increase in the number of new HIV infections associated with HIV spread of the virus in the population of drug users (Temirtau city Karaganda region). The second wave of recovery began in 2001 and was characterized by the spread of HIV infection to new territories (Pavlodar, West-Kazakhstan and South-Kazakhstan regions). In 2005, there was the third increase in the level of registration of HIV infection (Almaty) increase the proportion of people who are sexually infected. In 2008, it was registered historical maximum in the number of new HIV cases for the entire period of the epidemic - 2335 cases, which was due to the deterioration of the situation in the East-
Kazakhstan region and in the penitentiary system of a number of regions of Kazakhstan.

In 2011, there were detected 2006 new cases of HIV infection, during the same period in 2010, 1988 cases were registered, and the increase in new cases was 0.9%. The highest incidence of HIV infection by cumulative registration is observed in Almaty (3569), Karaganda (3244), South Kazakhstan (2024), East Kazakhstan (1924) and Pavlodar (1763) regions. The average national HIV prevalence among of the population of Kazakhstan in the age group from 15 to 49 years, as of 01.01.2012, is 0.2%. The highest prevalence of HIV infection is registered in Karaganda region, Almaty, Pavlodar, East Kazakhstan regions.

The predominant path of infection, in the structure of newly registered HIV infections among men in 2011 is injecting drug use - 60% (2006 - 82%), infection with unprotected sexual intercourse is 33% (2006 - 10%). Among women, infection with sexual intercourse - 77% (2006 - 49%), intravenous use of drugs - 19% (2006 - 49%). Among men for the period from 2006 to 2011 decreased infection with drug use by 1.4 times, among women - 2 times. However, there is a significant increase in the proportion of sexual pathways transmission: among men - 3 times, among women - 1.6 times.

Women are mostly infected from their sexual partners, who are injecting drug users. Therefore, statistical evidence strongly suggests that the epidemic does not only affect vulnerable groups, but also part of the general population, especially women associated with these groups. The epidemic is associated with the use of narcotic drugs, respectively effectiveness of measures to prevent the spread of the epidemic, depends on the efforts, aimed at reducing the risk of HIV transmission among injecting drugs. Achievement of this goal is promoted by the implemented harm reduction programs.

The sexual mode of transmission plays an increasingly important role in the development of the HIV-infection in Kazakhstan. The MS group is vulnerable to HIV infection due to the large number of sexual partners, the inability to control sexual behavior, lack of awareness, migration, involvement in alcohol and drugs. The SR group is a double threat to the HIV epidemic (two ways of HIV transmission - injecting and sexual), and here it is impossible to exclude the third way - vertical, since CP are in fertile age. In this regard, the implementation of epidemiological surveillance among MS is very important for understanding the real pictures of the epidemic and estimates of the size of the population of people living with HIV in the country (Ganina L.Yu. et al., 2012).

It has been reported that 30 million people have already died worldwide during the registration of HIV / AIDS. And mostly people of working age were dying. Kazakhstan is ranked among the countries with the lowest prevalence of HIV / AIDS. In general, according to doctors, a small increase is noted across the country. But the young age of the sick is frightening. The prevalence of HIV / AIDS among young people, as doctors say, is high. The majority of registered cases are people aged 15 to 39 years (Veber E., 2016).

In the Karaganda region, there is an increase in HIV infection. Only this year more than 300 inhabitants of the region fell ill with an incurable disease. Now there are over 2.5 thousand people with this diagnosis. And HIV spreads not only among vulnerable groups of the population. 60% of all cases are able-bodied people aged 20 to 40 years. Even two 14-year-olds have this diagnosis. Now a month passes in the region on HIV / AIDS prevention. Actions, conferences and lectures will be held in educational institutions, enterprises, military units and correctional colonies of the region (In the Karaganda region, the number of people infected with HIV is growing, 2016).

47 cases of HIV infection were registered among teachers in the education system of the Karaganda region, Tengrinews.kz correspondent reports with reference to KGP "OC AIDS". "Statistics on the incidence of HIV infection in the Karaganda region remains tense, and as of April 1, 2016, there were 4,415 HIV-positive people and 920 AIDS patients in the region, and there are 51 children who are infected, including 1791 people who were infected with unprotected sex", - said
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psychologist KGKP "OC AIDS" Dinara Balgimbekova.

Also, a specialist added that today the social portrait of a person living with HIV has changed dramatically. If previously a vulnerable group of people was infected with HIV infection - drug users, convicts, sex workers, today 47 cases of HIV infection have been registered among educators in the education system. At the same time the age of the sick varies from 20 to 50 years and the main transmission path is sexual. Also on the account in the regional Center for AIDS Prevention and Control are doctors, teachers, police, businessmen and even officials. "It is worth noting that this category of people has never used drugs and alcohol, and currently the sex route of transmission prevails. According to the territory of the Karaganda region HIV cases are observed in Bukhar-Zhyrau, Nurinsky districts. A dangerous disease is also spreading in Karazhal", - stressed Dinara Balgimbekova.

The specialist explained that recently teenagers have practiced early sexual intercourse. Often parents do not know about it. They also do not know about the abortions that girls do. "We should talk about HIV infection not with tactics of intimidation, but with the goal of prevention. It is very important to inform young people about mandatory screening for HIV and sexually transmitted infections before they marry. Today this is a trend of time", - stated the psychologist KGKP "OC AIDS" (Almost 50 teachers of the Karaganda region have HIV infection, 2016).

Epidemiological surveillance of HIV infection is a system of collection, analysis and dissemination of epidemiological information on HIV for planning, implementing and monitoring prevention programs. One of the main methods of epidemiological surveillance are the registration of cases of HIV infection, revealed during voluntary testing by clinical and epidemiological indications with pre- and post-test counseling.

Serious attention is paid to the integration of HIV and AIDS in concept of development of the health system in the Republic of Kazakhstan, with the aim of improving access to voluntary counseling and testing, prevention and modern approaches to ARV therapy. Helps identify new cases of HIV-infection, the country's testing policy for different groups of population, which allows testing more than 13% of the population every year. Volumes of Testing in 2011 compared to 2006 increased by 2 times. As a result of such testing policy in Kazakhstan about 70% of HIV-infected people know their HIV-status.

The problem of reducing the spread of the HIV epidemic is one of the priority directions of public health. Harm Reduction Strategy of Drugs injection is realized in the Republic of Kazakhstan in the framework of state programs, being one of the most priority tasks. The strategy for testing the population for HIV infection is reflected in paragraph 99 of the Plan of measures for the implementation of the State Program for Health Development of the Republic of Kazakhstan "Salamatty Kazakhstan" for 2011 - 2015, approved by the Decree of the Government of the Republic of Kazakhstan No. 41 of 29.01.11, where the need to provide access to quality counseling and testing for HIV infection, rapid HIV diagnosis in friendly offices and trust points. The state guarantees the provision of an HIV test and counseling on HIV-infection on a free basis - as confidential, and anonymously, as indicated in the Code of the Republic of Kazakhstan No. 193-IVZPK of September 18, 2009 "About health of People and the health care system "(Chapter 19, Article 115). In addition, the order of examination on HIV-infection is regulated by the following normative documents:

- Resolution of the Government of the Republic of Kazakhstan No. 1280 of 03.11.11 "The rules of medical examination of persons for clinical and epidemiological reasons for HIV infection".
- Order of the Ministry of Health of the Republic of Kazakhstan No. 228 of 09.03.2004 "On the organization of the activities of the points trust for injecting drug users".
- Order of the Ministry of Health of the Republic of Kazakhstan No. 295 of 29.03.2004 "On approval of the Regulation on organization of activities of friendly cabinets".
• Order of the Ministry of Health of the Republic of Kazakhstan No. 227 of 09.03.2004 "On the Organization of Activities Anonymous Cabinets for HIV testing and psychosocial counseling for HIV/AIDS" (Ganina L.Yu. et al., 2012).

If we take separately the Karaganda region, from the beginning of registration in the 1990s to the present day, we have registered about four and a half thousand people. 1,800 people of these, unfortunately, have already died. And actually about 800 people died of AIDS, - said the head of the Karaganda regional AIDS center Beibut Sagimbayev. The main contingent of patients is people who are at risk: injecting drug users, sex workers and prisoners.

In connection with the fact that sometimes there are asocial people too, we have certain problems with which we work - these are problems with adherence to treatment. To do this, we connect not only specialists and medical workers, but also members of non-governmental organizations, the patients themselves, who are taking the treatment", says Beibut Sagimbaev.

Pregnant women are under special control, doctors say. In the first quarter of this year, 16 pregnant women were registered; eight of them already gave birth. Doctors say that, thanks to prenatal prophylactic treatment, there have been healthy children who are up to a year and a half of age on dispensary registration and periodically test them for HIV (Veber E., 2016).

In Kazakhstan, since 1987, 29573 HIV infections have been registered, including 508 cases of children carrying the virus, KazINFO Today reports referring to the Republican AIDS Center. Mostly, the infection of children occurs from HIV-infected mothers, if the recommendations for the prevention of mother-to-child transmission of HIV are not observed. Timely registration in women's clinics and HIV testing, getting antiretroviral prophylaxis for an HIV-infected pregnant woman in childbirth and refusal of breastfeeding can save the child from infection in the future (More than 500 children are infected with HIV in Kazakhstan, 2017).

In the Karaganda region there were 699 cases of infection of pregnant women. The AIDS Center is trying to help such future mothers to prevent the transmission of the virus to the child. Local specialists use antiretroviral therapy for this. I must say that it really helps. Only thirty-two women gave birth to infected children.

"These were the cases when we learned too late that women are infected," says Nikolai Kuznetsov. - Now we face the task of not having infected children at all. In the West, this is almost achieved. Nikolay Kuznetsov believes that today in the oblast there is little preventive work among minors. If earlier in schools the problems of AIDS were given time in special occupations, now it is not. Specialists of the AIDS Center applied to the oblast akimat for help, they ask for at least a little time in schools for special classes with high school students. Such lessons can be conducted, for example, at the expense of time allocated for the study of biology.

"We need to strengthen educational activities among the population," says Nikolai Kuznetsov. - The majority of those infected with us with secondary education, but many people and with higher education. That is, as a rule, these are literate people who can read the materials of the media to which agitation work should go. There are those who are infected, but hide it, they think, maybe it will carry. There are those who do not know about the danger. We have prepared a letter for the name of the deputy akim of the region. We ask you to gather mass media, call the leadership of the education department and agree on joint work. To at least once a quarter, journalists print information on how to protect themselves from AIDS. We also ask for some pilot projects for schools. We will conduct work among high school students. Awareness among them on HIV is 60 percent. It is necessary to achieve 100 percent. To the teacher of biology this subject is closer, we could train teachers and ourselves would go to schools.

Worst of all, information on HIV prevention is in rural areas. Often there and do not talk with
children about what AIDS is and how they can get infected.

Specialists of the AIDS Center warn: it is necessary to always remember the danger of contracting HIV and protect your health, avoid unprotected casual sex, do not use used syringes (Mendybaeva D., 2014).

The human immunodeficiency virus can be transmitted to the child during pregnancy, childbirth or breastfeeding. Timely measures during pregnancy and childbirth can reduce this risk to 1-4%. Unfortunately, it is impossible to exclude the possibility of transmission of the virus to the child.

Many women think about how pregnancy and childbirth will affect their own health and the development of HIV infection. Fortunately, all studies indicate that the birth of a child does not harm the health of an HIV-positive woman. During pregnancy, all women lose their immune status, but after birth, it becomes the same. Possible problems exist only if the immune status in a woman is below 200 cells / ml and she is at the stage of AIDS.

To prevent transmission of the virus during pregnancy and childbirth, a special preventive course of one or three antiretroviral drugs is prescribed. During pregnancy, they begin to take it from the 14th week. These drugs are safe for use during pregnancy and for the newborn; they do not harm the child in any way. However, some antiretroviral drugs cannot be taken during pregnancy. So if you are prescribed therapy - discuss with your doctor the possibility of planning pregnancy and taking therapy during it. There is no unequivocal opinion about the optimal way of giving birth to a woman from a woman with HIV. So if you are prescribed therapy - discuss with your doctor the possibility of planning pregnancy and taking therapy during it. There is no unequivocal opinion about the optimal way of giving birth to a woman from a woman with HIV. Some recommend a cesarean section to reduce the risk. However, this is a cavitary operation, which means a risk of bleeding and postoperative infections, which are dangerous for a woman's health. Therefore, if a woman does not have other indications for cesarean section and she does not have a very high viral load, most doctors recommend natural childbirth. Taking drugs, alcohol and smoking cigarettes increases the risk of HIV transmission to the child and should be avoided. If you are just planning a pregnancy, then you may need to seek help for a drug or nicotine addiction. During pregnancy, you need to eat normally - it will also reduce the likelihood that the baby will be HIV-positive. It is desirable to avoid stress and try to rest more. Some vitamins can be not only useful for the development of the child, but also protect it from HIV. Just remember that vitamins should also be prescribed by a doctor. The probability of HIV transmission to a child during breastfeeding is about 14%, so it should be excluded. At the same time breastfeeding from time to time can be even more dangerous than regular. Modern artificial nutrition can provide the baby with all the necessary substances. Many HIV-positive mothers also have hepatitis C. The risk of transmission of hepatitis C to a child during pregnancy or childbirth is extremely small, but it is higher if the mother has HIV. In general, according to experts, this risk does not exceed 10%. In general, transmission of hepatitis C occurs during childbirth, and a planned cesarean section can reduce it.

An analysis of the dynamics of growth of pregnancies among HIV-infected women in the Karaganda region, has shown steady growth in pregnancies and births in the last 5 years (2010-2015) the number increased by 2 times. All this is due to a conscious attitude to women during pregnancy, awareness of the availability of modern methods of prevention and the desire to have a healthy baby. Also, an increase in coverage of medical observation in no small measure contributed to the decrease in recent years, stigmatization of HIV-infected people in the community, as well as the formation of a different view of doctors for HIV infection in women problem. It should be noted that more than half of the pregnant woman are informed of the presence of HIV infection before the onset of pregnancy, and it is not an obstacle to the birth of the child.

Detection of HIV infection in late pregnancy is gradually reduced. But it remains an unsolved problem and the lack of diagnosis of HIV infection in pregnant women before delivery and diagnosis.
after delivery in 4.6% of women. Lack of diagnosis of the disease during pregnancy was due to various reasons, such as lack of treatment of the woman before giving birth, infection just before birth, as well as failure to comply with inspection standards during pregnancy, lack of attention on the part of medical personnel to the survey results, etc. In women who did not receive ARV prophylaxis during pregnancy, the risk of the baby becoming infected is much higher.

Every year, there is the prevalence for the proportion identified as clinically indicated from 8.8% in 2008 to 21.3% in 2015, indicating the earlier infection (5 years or more). This requires special attention to compliance with all the requirements for the prevention of infection of the unborn child, because in symptomatic stages of the disease, high viral load and a significant immunodeficiency virus transmission risk becomes much higher.

Despite the fact that every year the coverage of chemoprophylaxis of HIV infection at all stages is increased, it has not reached the threshold of 85% of mother-infant pair, vertical transmission of human immune deficiency virus prevention in the Republic of Kazakhstan has not yet reached the level of that in developed countries. This is primarily due to the incomplete coverage of chemoprophylaxis of HIV-infected women during pregnancy, the use on the part of pregnant women and children under-performing schemes prevention of late-onset dosing.

Throughout the period of registration in the country, from HIV-infected mothers were born 1990 children are diagnosed with HIV infection is established 93 children (4.7%). Indicator PLHIV prevalence among children under 14 years in the republic amounted to - 9.0. The largest number of cases of HIV infection among children is observed in South Kazakhstan region, where prevalence in the child population of 100 thousand is - 24.7, Karaganda - Almaty, 13.2 and 12.0.

Of the 395 live births to HIV-infected mothers in 2015, the diagnosis of HIV infection is established 7 children. The perinatal transmission was in 2015 - 2.1% decline observed in more than 2 times in the last 5 years resulted in a widespread introduction of PMTCT programs.

In 2015 in Kazakhstan 42 cases of HIV infection in children less than 14 years (2012 year to 33) was revealed. Of the 42 HIV - infected children, 31 children (74%) were identified retrospectively. The mode of transmission in 36 children - vertical, in 6 children, the transmission path is not set.

In the Karaganda region for the entire period of registration of HIV-infected mothers were born 395 children, in spite of the ongoing activities and achievements, there was an ultimately failed attempt to prevent the transmission of HIV from mother to child, the diagnosis of HIV infection is established in 30 children (9.3%), 61 babies, born to women with HIV infection and are at the dispensary to 1.5 years.

In the period up to 2009 there were identified 21 children with a diagnosis of HIV infection, including 4 who died in the period from 2009-2015. It identified another 13 children. Of the 30 children who are registered in the regional center for the prevention and control of AIDS, 16 (53.3%) patients were found retrospectively in age from 1 year to 12 years. So of the 13 children with a diagnosis of HIV infection identified in the last 5 years, the diagnosis retrospectively done in 2009 identified 10 children; 1 child in 2010; 2 children in 2011; 2 children in 2013; 4 children in 2014 and 1 baby.

The risk of perinatal transmission in the Karaganda region amounted to 2.3% in 2015, against 9,6% (p <0,05) in 2010, which is slightly higher than the republican figures.

It was found that children with HIV have reached the age of 4 to 10 years, 40% aged 11-14 years, 30% of the children organization was 73.3%.

Among children with HIV infection by sex was as follows: boys - 12 (40%), girls - 18 (60%).

By stage of HIV infection children were distributed as follows:

Stage I - 7 (23,3%), II step - 16 (52,3%), III Stage - 5 (16,7%), IV Step 2 (6.7%).

Of the 30 children with HIV, highly active antiretroviral therapy assigned to 26 (86.6%)
In children with perinatal HIV transmission, there was observed a high incidence of medical risk factors: the absence of chemoprophylaxis of perinatal transmission of HIV from mother to child (42.8%), lack of chemoprophylaxis after birth (35.4%), the availability of breastfeeding (100%), childbirth through natural way (100%) increase in the proportion of mothers with early diagnosed (21.3%). In the antenatal ontogenesis, as additional factors noted placental insufficiency (100%); in intrapartum - signs of rising amniotic infection (90%), invasive obstetric interventions (8.1%), violation of the integrity of the birth canal as a rupture of the labia minora, the gap wall of the cervix (4.08%), episiotomy (3%) . On this basis, there is considerable scope for improving the results of vertical HIV transmission.

Questions about social orphanage in Kazakhstan are still acute among children born to HIV-infected mothers. The number of children with HIV infection, without parental care tends to rise.

Today marked an increase in the number of teenagers who have adapted to HIV infection, with knowledge about their chronic disease. These teens need to imagine a holistic approach, including the promotion of compliance with complex treatment regimen, counseling on sexual and reproductive health for the prevention of the further spread of HIV, as well as psychosocial support and training.

A typical progression with average rates set for 81% of children continues to a clinical stage ranged from 6 months to 5 years, on average - 2.5 ± 0,8 years. Duration of clinical stage II ranged from 6 months to 6 years old, on average - 3,1 ± 0,8 years.

Rapidly progressive course was observed in 19% of children with a fatal outcome of AIDS in the first year of life in 3 (14.2%), the third year in 1 (4.7%) patients. Duration of clinical stage III ranged from 1 month to 1.5 years, on average - 8,4 ± 0,4 months. Slow-progressive course of HIV infection observed in children is not established.

We have developed basic categories of life of children in the age limit to 18 years, with the differentiation of their severity, functional classes, respectively.

Developments on the rehabilitation of patients from this cohort of rehabilitation potential level. Rehabilitation potential of HIV-infected children is determined by the degree of clinical and functional disorders: 88.3% of children have revealed marked abnormalities in the body that correspond to the 3rd functional class with low rehabilitative potential. Violations of moderate degree was diagnosed in 11.7% of children, which corresponds to the 2nd functional class, rehabilitation potential in this medium, with the commitment of parents to HAART, and the conditions for the socio-environmental, psychological and pedagogical programs. Children with HIV need along with health (100%) in teaching (94.1%), social (88.2%), psychological (70.5%) of rehabilitation and vocational guidance.

Thus, HIV / AIDS analysis of vertical transmission from children in Karaganda region showed an increase among pregnant women with registered cases of HIV infection and, as a result, growth in the number of children born to HIV-infected mothers; indicating the relevance of studying this problem. Another important problem remains unaccounted in cases of HIV infection among pregnant women and children with a vertical route of infection.


7. In the Karaganda region, the number of people infected with HIV is growing, (2016). – Nov. 12 – 24.kz


10. Almost 50 teachers of the Karaganda region have HIV infection, (2016). – News of Kazakhstan, Apr. 15 – Tengrinews.kz


