A special issue of the journal is devoted to studies of specialists of the Republic of Kazakhstan, foreign countries in the field of epidemiology, diagnostics, treatment, prevention of zoonotic infections. The issues presents results of research work of the Department of infectious an tropical diseases of the Kazakh National Medical University after S. D. Asfendiyarov on the theme “Development of scientific based programme of diagnostics, treatment, and prevention of urgent zoonotic infections: clamidiosis (psittacosis), brucellosis”, conducted in the frameworks of the programme of Ministry of Education and Science “Purposeful development of the science in university settings oriented to innovative result”.

Public health services implement policy stimulating continuous quality improvement in health care, but not focused only on revealing of zoonotic infections. Conducting of the International Conference “Zoonotic Infections: yesterday, today, tomorrow”, selection of discussion topic in the journal’s issue with a mission to concentrate focus of different specialists to the same problem, and spectrum of publications is aimed to consolidate all efforts in the struggle with urgent zoonotic infections in the Republic of Kazakhstan and countries of Central–Asian region.

Director of the Project,
Head of the Department of
Infectious and tropical diseases
With a course on
«HIV-infection and infectious control»,
Doctor of Medical Sciences, Professor A.K. Duisenova.

ZOONOSES: YESTERDAY, TODAY, TOMORROW

A.K. Duisenova., K.B. Kurmanova.

It is advisable to standardize a classification of brucellosis in the Republic of Kazakhstan with a compulsory form of "Re-brucellosis. Super-and / or re-infection" with the purpose of official registration, as otherwise it will not be held epidemiological investigation and sanitation of brucellosis foci.

Use of only routine serological diagnostic methods for brucellosis (reaction Wright Heddelson) does not meet to modern requirements of the diagnosis of infectious diseases. To infection with the intracellular location of the pathogen and induction of low production of antibody, the lack of protective role of antibodies is characterized by low or negative results of serological tests aimed to detect antibodies, especially in a chronic stage of disease.

Treatment of brucellosis must be conducted by a specialist on infectious diseases based on the WHO protocols, adapted to the Republic of Kazakhstan with the use of modern antibiotics, with a pathogenetically justified inclusion to the scheme of therapy immune corrected drugs and early initiation of rehabilitation measures for prevention of disability.

Undeservedly was forgotten such an important part of the doctor's responsibility as health education and preventive work. In respect of zoonotic infections in general, and brucellosis in particular due to worsening of the epizootic situation, the expansion of human contact with the source of infection and transmission factors need to improve sanitation and hygiene awareness among the population, to influence the behavioral responses to reduce the risk of primary infection, re-infection and super-brucellosis in the regions with high incidence of people and animals.

That is necessary to introduce adequate material compensation to the owner of sick livestock, to prevent forced slaughter and meat sales.

Also it is necessary to prepare a curriculum specialist at the pre-and post-graduation level for practical public health of the Republic of Kazakhstan to introduce an adequate amount of hours of zoonotic infections in general, and brucellosis in particular.

In modern conditions it is required more deeper research and rationalization of thinking to identify possible areas of intervention within the scope of the problem throughout the zoonotic infections and to assess which strategies are most effective, how they would be feasible, how they could be implemented, taking into account political, social and economic context.

If these issues will not be resolved today, tomorrow, instead of the time the "future", we are risking to go back to the "past", thus undoing all the progress in the prevention of zoonotic infections.

INFORMATIONAL SUPPLY OF EPIDEMIOLOGICAL SURVEILLANCE ON BRUCELLOSIS ON THE BASE OF GIS-TECHNOLOGY

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Scientific Centre on quarantine and zoonotoc inferctions after M. Aikimbayev
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Objects of study: human incidence of brucellosis, brucellosis prevalence in livestock, number of human cases, and brucellosis-positive livestock.

The purpose of the study was primary evaluation of medical and ecological capacity of Kazakhstan with use of geographical and informational technologies, development of electronic mapping database, creation of series of topical interactive maps..

There was conducted work on zoning of the territory of Kazakhstan, troubled with brucellosis. The test run was associated with inter-group comparison of data on morbidity diagnosed with brucellosis. Manifestations of the epidemic process in each administrative area (region) were compared with those of the total population (visualization of indicators).

For epizootic zoning was carried out: the division of the territory of the Republic on epizootological areas, depending on the natural and geographical characteristics, the study of the spread of brucellosis in farm animals in the territory; study of etiological factors that explain the similarities and differences between animals in different disease epizootic areas.

The investigations yielded the following **results:**

1. There were formed databases of diseases that were diagnosed in first time among people (for the period from 2004 to 2010) and the prevalence of brucellosis in cattle (2004-2010) in the format of dBASE IV, on which to create shapefiles that are read in free and commercial GIS systems.
2. According to long-term data on morbidity we can distinguish regions with low incidence of people diagnosed with brucellosis (m/5-m/1, 1) - (North Kazakhstan, Mangistau, Kostanay, Akmola, Pavlodar region), with an average incidence (m-2, 9m) - (Western- Kazakhstan, Karaganda, Aktobe, Atyrau, Eastern- Kazakhstan oblasts) and a high incidence (3m-5m and above) (Almaty, South Kazakhstan, Zhambyl, Kyzylorda oblasts), where m - the average national incidence of brucellosis in humans .
3. The strongest link was found between the incidence of brucellosis among people with the natural factors such as the maximal height above sea level (r = +0,45). We have no significant correlation between the incidence of people diagnosed with brucellosis and natural factors such as the maximal magnetic field intensity and rainfall.

Field of application: epidemiological surveillance.

These techniques are important and necessary to complement traditional methods of data collection and analysis of epidemiological and epizootic data.

EPIDEMIC MANIFESTATION OF BRUCELLOSIS IN THE EASTERN-KAZAKHSTAN OBLAST

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The purpose of this study was to examine the manifestations of brucellosis epidemic situation in Eastern Kazakhstan Region (EKO). The investigations yielded the following **results:** In 80's area of the Eastern- Kazakhstan oblast was one of the most prosperous in the Republic of brucellosis (cattle infestation level was recorded in sporadic areas in certain regions and households, the incidence of people did not exceed 6.12 cases per year, the group recorded no incidence). The entire complex now known prevention of brucellosis carried out promptly and in a full volume.

Since the early 90s, in connection with the collapse of a unified system of agriculture, economy, development of private livestock and a sharp increase in migration has increased dramatically affected animals and, consequently, the incidence of human brucellosis. For

example, since 1990, in the observed annual increase in cases, bringing the incidence increased in 2.4 times (from 92 cases in 1990 to 221 cases in 2010).

In recent years, an active process of healing troubled brucellosis livestock items has begun. As a result, the share of the outbreak incidence from 16% in 2006 (2 local outbreaks, 5 spills, with a total of 36 cases) to 11.4% in 10 months of 2011 (2 local and 1 family outbreak with a total number of 21 sick people).

Thus, in recent years in EKO epizootic and related epidemiological situation of brucellosis was worsened. Carried out preventive and anti-epidemic work helped to stabilize the situation, but it requires further prompt and full implementation of measures to improve the sources of infection.

SENSITIVITY OF BRUCELLA ISOLATES SEPARATED FROM DIFFERENT CLINICAL SOURCES IN THE SOUTHERN-KAZAKHSTAN OBLAST TO ANTIBACTERIAL MEDICINES

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Objects of study: 126 cultures of *Brucella melitensis*, isolated on the territory of the Southern-Kazakhstan oblast from different clinical sources (blood, liquor, synovial liquid) during a period of 2004 -2010. As a control for biotyping we used reference culture of *B. melitensis* 16M from the collection of Kazakh Scientific Centre on Quarantine and Zoonotic Infections.

The purpose of the work was identification of sensitivity of brucella isolates separated from different clinical sources in endemic the Southern-Kazakhstan oblast to antibacterial medicines.

We determined the minimum inhibitory concentration (MIC) of doxycycline, rifampin, gentamicin, ciprofloxacin and the combination trimethoprim-sulfamethoxazole (TMP / CM) using E-test (Biometrieux, Sweden) on Brucella agar (Hi-media, India) supplemented with 5% sheep serum with the evaluation results within 48 hours inkubtsii in air (without CO2-incubator) at 37 ° C.

The investigations yielded the following **results**:

In accordance with the minimum inhibitory concentration-90 the most effective in vitro against Brucella drug was doxycycline (0.07 mg / ml). Second place took on the effectiveness of ciprofloxacin (0.098 mg / ml). Despite the fact that rifampicin was effective in vitro against clinical isolates of Brucella, wary of its relatively high MIC required to inhibit bacterial growth.

Conclusions

1. The most effective drugs in vitro against brucellosis according to the E-test were doxycycline and ciprofloxacin.
2. We noticed trend of increased resistance against rifampicin in clinical isolates of Brucella isolated in Southern-Kazakhstan oblast.

COMPARATIVE ASSESSMENT OF BIOCHEMICAL INDICATORS N DYNAMICS AMONG PATIENTS WITH SUBACUTE AND CHRONIC BRUCELLOSIS TREATED BY INDUCTORS OF INTERFERON AND POLYOXIDONIUM

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Introduction. Development of chronic form of brucellosis infection may be a consequence of secondary immune deficiency, and imbalances in the system POL/ antioxidant system, namely the increased production of products of lipid peroxidation and antioxidant enzyme activity insufficient. In this regard, pathogenetically justified is the use of combined treatment of patients with brucellosis drugs with a wide range of immunotropic action, in particular, inducers of interferon (cyclopheron, amixine) and polyoxidonium having, along with immunomodulatory and antioxidant properties.

The purpose of study. Comparative assessment of biochemical indicators n dynamics among patients with subacute and chronic brucellosis treated by inductors of interferon and polyoxidonium.

Materials and methods. Dynamics of biochemical parameters during treatment was studied in 75 patients receiving cyclopheron, 65 patients taking amixine, and 52 patients treated by polyoxidonium. Compared groups of patients did not differ significantly from the initial clinical and biochemical indicators.

Results and discussion. Comparative analysis of biochemical indicators during treatment with inducers of cyclopheron polyoxidonium and revealed a distinct difference in the dynamic of lipid peroxidation and antioxidant defense in patients with subacute brucellosis. Comparative analysis to define as effect of three immunomodulators on biochemical indicators in brucellosis showed a clear advantage of polyoxidonium comparing with cyclopheron and amixine, which was manifested in a significant decrease of lipid peroxidation products and increased activity of major antioxidant enzymes in all clinical forms of the disease. Application of amixine in complex treatment of patients with brucellosis moderately reduced content of the final products of lipid peroxidation but did not restore them to normal levels, and increased levels of antioxidant enzymes, but not significant in comparison with baseline data. In patients treated with cyclopheron, the dynamics of the content of lipid peroxidation products and antioxidant enzymes was also insignificant.

SELECTED INDICATORS OF IMMUNITY AMONG PATIENTS WITH ACUTE AND CHRONIC BRUCELLOSIS

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Present time assessing an immune status, in addition to features of the cellular composition of the immune system, much attention is paid to the nature of intercellular relationships, providing a full immune response. As a consequence, study of only quantitative parameters of the immune system may be a cause of delayed diagnosis of immunological disorders. Study of features of cytokine production can objectively assess a nature of intercellular relationships between individual cells that implement the immune response.

A comparison of spontaneous and stimulated production of IL2 they noticed that the rate in response to stimulation with IL2 level increases by 1.4 times. In patients with acute and chronic brucellosis IL2 production increases by 1.2 times, indicating a decrease in reserve of T-helper cells in these patients.

Studying IL4 production, providing the initial stages of differentiation of B cells into plasma cells, we found only a reduction among patients with chronic brucellosis. In patients with acute brucellosis IL4 production level of standards was not different.

In contrast, to IL4 production of IL6 providing the final stages of differentiation of B cells into plasma cells was significantly reduced not only in patients with chronic, but also in patients with acute brucellosis.

However, the process of differentiation of B cells into plasma cells in patients with acute brucellosis was disturbed, as evidenced by low production of IL6.

In addition, patients with chronic brucellosis progresses violation of differentiation of B lymphocytes into plasma cells, as indicated by not only reducing IL6, but also production of IL4 was declined.

Summarizing presented data, that could be argued that our studies complement published data on immunology of brucellosis and allow from new the position to approach for the interpretation of the disease's pathogenesis.

ANALYSIS OF EPIDEMIOLOGICAL SITUATION ON BRUCELLOSIS IN THE SOUTHERN-KAZAKHSTAN OBLAST DURING 2007-2011

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Despite on the decline of brucellosis incidence in general, in Kazakhstan - the problem of combating with the infection remains relevant. South Kazakhstan is one of the disadvantaged regions in the Republic of Kazakhstan. The sources of brucellosis in farm animals are out on their share of the sheeps - 64.0%, and cattle - 19.0%. The main modes of transmission are - contact 84.8% and 13.6% nutritional. In our study, data were collected at the South Kazakhstan region as a whole and its constituent areas: incidence, in absolute terms the number of cases per 100,000 of population. . The brucellosis incidence is not equal in different parts of the oblast: from maximal indicators in Baydybek district in 2007. - 150.60 per 100,000 of population, to the minimal in Mahtaralskom area - 3,49 per 100,000 in 2009.
This analysis confirms that in general, SKO has a trend to decrease the incidence of brucellosis. This is due, with the result of consistent efforts to combat against brucellosis:

- Timely survey of animals in areas with outbreaks of infection, with a positive result of the elimination of sick animals, disinfection measures
- Collection of pathological material and other samples to identify the causative agent
- Scheduled medical examinations of employees livestock
- - Quality control of meat and dairy industry

The factors limiting recovery of animal populations and contributing to the spread of infection among the population include:

-spread of brucellosis among farm animals of all forms of ownership;
- violation owners of livestock animal health rules for its content, delayed slaughter and destruction of the identified patient livestock, especially sheep;
- Uncontrolled migration of livestock, the free purchase - sale of animals and their import into

the economy without the permission of the survey and veterinary services;
- Lack of information of the population about brucellosis.

Conclusion: continue the effective range of measures against brucellosis, improve the quality of health education among the population in South Kazakhstan region.

IMPROVEMENT OF EPIDEMIOLOGICAL SURVEILLANCE FOR NATURAL FOCI OF HEMORRHAGIC FEVER WITH RENAL SYNDROME

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Annual registration of disease of hemorrhagic fever with renal syndrome (HFRS), expansion of the area of infection, cases of unpredictable outbreaks of HFRS shows the imperfection of the existing surveillance system.

A study in Russia, which showed that the molecular-genetic methods are most effective and preferred for the identification and characterization hantaviruses circulating in nature. On the basis of the algorithm of epizootiological research in the following scheme was developed. In the first stage is carried out using the ELISA screening material from rodents in the presence of antigen, an evaluation of their level of infection. In the second stage selected for further study of positive and doubtful samples are studied using molecular genetic techniques that can determine the spectrum of circulating hantaviruses in the region, as well as to assess the level of heterogeneity of their populations.

In this paper they studied the possibility of using of the developed molecular genetic techniques to identify "new" natural foci of HFRS.

With the use of molecular techniques in first time was established, and then using immunological techniques confirmed that the Astrakhan region in the Republic of Kalmykia, there are natural foci of HFRS, hantavirus associated with Dobrava. In this new circulation of this virus of different genotypes was found in the steppe, semidesert, and floodplain landscape-geographical zones of the region.

Based on data obtained from the molecular epidemiological studies, as well as the analysis of important criteria by using the geographic information system (GIS), was conducted epidemiological zoning of the Lipetsk region. As a result, all parts of the region were ranked in categories - high, medium and low risk of HFRS.

Thus, to further improve surveillance of natural foci of hantavirus it is necessary wider application of molecular genetic techniques, as well as the introduction of epidemiological practice of GIS technology.

ZOONOZES IN THE SOUTHERN-KAZAKHSTAN OBLAST AT THE MODERN STAGE

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Introduction. Zoonozes are infections that are common for animals and humans. Infection of human occurs in different ways: through the bites and injuries, food and objects of the environment, pollution, animal secretions, through blood-sucking vectors, or aerosol. Currently, infectious diseases, a group selected to zoonozes, still have its epidemiological significance. Most of them have no means of specific prevention and annually causes great economic losses. The significance of zoonotic diseases is also determined by the severity of the clinical course and high mortality (average of 3 to 35%, and in case of rabies - 100%), and high cost of treatment, an anti-epidemic measures.

Materials and methods. We analyzed statistical data of the Department on State sanitarian and Epidemiological Surveillance of Southern- Kazakhstan oblast for 2007 – 2011.

Results. In SKO situation on zoonozes remains tense. The incidence of brucellosis in SKO in recent years has declined (from 31, 11 in 2007 to 26, 55 in 2010.), But still exceeds the average by more than 2.3 times. The incidence of rabies in SKO is the largest in the Kazakhstan and exceeded the average of 5-6 times out of 10 registered in 2007 for all country cases - eight in the SKO, 6 cases in 2008 for the Republic – with 5 in SKO. Crimean - Congo hemorrhagic fever an endemic for the territory of Southern Kazakhstan. Southern Kazakhstan is one of the disadvantaged regions of the Republic of Kazakhstan on the natural foci of CCHF. The epidemiological situation of anthrax before 2011 remained relatively stable: there was not registered cases in 2007, 2009, 2010. In 2008 - 2 cases in the region (out of 10 reported cases in Kazakhstan), and 3 cases in the current year.

Conclusions:

1. Over the past 5 years in SKO there was observed increase in the incidence of echinococcosis, rabies and anthrax, was marked by a consistently high level of registration of brucellosis, salmonellosis, intestinal Yersinia pseudotuberculosis infection, Congo-Crimean hemorrhagic fever.
2. Existing in the SKO active foci of zoonotic infections require a comprehensive study using a complex epidemiological, clinical, environmental, and laboratory methods.

CLINICAL CASE: PROGRESS OF RABIES IN A FEMALE CITIZEN OF SOUTHERN-KAZAKHSTAN OBLAST DUE TO EYE CONTUSION AND FOREHEAD INJURY

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Rabies by its fatality at this stage of modern medicine development, retains as a serious and yet insufficiently studied and solved problem of public health. More disturbing than the interest, causes disease in relation to the latest statistical data – increasing of cases rabies among people. The epidemiological situation of rabies in Southern- Kazakhstan oblast remains tense. In

the past 5 years were registered about 30 cases. Late treatment, refuse from rabies vaccination as a consequence of ignorance and carelessness of the victims, leaving them with no chance of survival. The speed and severity of infection is directly related to the initial localization of the virus, the head and neck in 90% of cases gives a demonstration of accelerated development of the disease with a known outcome.

The female resident of Makhtaaral district, aged 50, on 02/25/11 during visiting of an outdoor toilet in the morning collided with an unknown dog, and as the result she received a contusion of the right eye and forehead, while noting some bleeding from the bruised eye. On the same day a woman visited ophthalmologist, who prescribed her antibiotics. After 2 weeks she experienced development of photophobia, hydrophobia, depression, but after visit of the private clinic she still had not diagnosed rabies. Later, the patient was examined by the specialist on rabies and she received the vaccine against rabies. But the next day she was hospitalized in serious condition. Based on the history of the disease, epidemiological anamnesis, clinical picture of the disease she finally exhibited a clinical diagnosis of rabies, city type, stage of excitation. Despite on treatment the patient exited.

Conclusions:

1. Head injury reduced incubation period to 17 days.
2. Wrong tactics of ophthalmologist who provided primary care became a main cause of lethal result.
3. Absence of awareness about rabies among different medical specialists.
4. All victims of injuries as a result of contact with animals should be treated against rabies (urgent anti-rabies prophylaxis).

PECULIARITIES OF CLINICS AND DIAGNOSTICS OF YERSINIOSIS AT THE MODERN STAGE

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Study Design: Analysis of clinical histories from the Stavropol Regional Hospital for Infectious Diseases and outpatient charts of Stavropol Regional Clinical Advisory Diagnostic Center for the period 2006-2010.

Yersiniosis has attracted the attention of researchers due to increased level of morbidity. We analyzed medical records of 149 patients with confirmed diagnosis of "yersiniosis," hospitalized to Stavropol Regional Hospital for Infectious Diseases and 41 patients who were hospitalized to Stavropol Regional Clinical Advisory Diagnostic Center. The bulk of the individuals were at the age of 20-35 years old. Males - 53.3%, females - 46.7%. Disease duration ranged from 1 month to 5 years. Percentage of people who linked disease with the use of vegetables was 11.3%, with meat products -20.7%, with contact with animals - 15.4% of cases. Patients of outpatient clinics due to prescription of the disease, did not connected its occurrence with any factor . However, 46.6% of them had pets (cats, dogs), and 20% indicated the presence of rodents. Attention is drawn to the transformation of clinical disease in 2008. If in the previous 2 years acute course of disease was observed in 82.7% of cases, in 2008 - only in 58.3% and chronic - 41.7%.

It was characterized by a more "soft" onset of the disease. If in 2006 the temperature reaction was noted in 72.7% of cases, in 2008 only - 33%. Due to fact that we have dealt mainly with chronic disease (80%), the temperature reaction had sub febrile character and revealed in 53.3% of patients. The same trend was noted in respect to diarrheal syndrome. In 2006 and 2007 it was met in 63.6% and 59.6%, respectively, than in 2008 - in 41.7%, and in 2009-2010 – in 40% of all cases.

If patients infection hospital had abdominal pain localized in the right iliac and umbilical region in all of the observed cases, than patients attended outpatient clinics only in 53.3% and, as a rule, with no clear localization. From other manifestations of dyspeptic symptoms there were observed reduction of appetite, nausea, vomiting, abdominal distension in 26.7%. Symptoms of mesenteric lymphadenitis were detected in 35% of hospitalized patients, and only 20% in outpatients. Articular syndrome was encountered in 2.3 times more frequently among hospitalized patients and completely absent among ambulatory patients.

In routine studies, significant deviations from accepted values were found. The only method of diagnosis of yersiniosis in Stavropol Region was the RDHA. Recent years, an alternative method of diagnosis used to identify the DNA of Yersinia is PCR. In 57 patients the result was positive. ELISA is used for diagnostics of yersiniosis since 2007. In the presence in RIHA diagnostically significant titers of AT-specific IgA and IgG using ELISA were found in 75.6% of all samples. At the same time, 90% of samples were negative according to the data of RIHA, identified specific IgA and IgG. The immune status of patients was characterized by lower level of CD4 +, CD8 + low T-lymphocyte response to PHA, with an increase in the number of B-lymphocytes, 33% of patients showed improvement of CEC. Thus, in recent years, a change in clinical yersiniosis to the direction of more mild course with a tendency to chronic process and the more severe forms of allergic reorganization of the body marked. When handling patients during the chronic form of the disease, they had no clear clinical signs. We need to pay attention to the epidemiological history, long sub febrile, syndrome of limfoadenopathy and localization of abdominal pain during an objective examination to appoint diagnostics of yersiniosis in time.

LABORATORY DIAGNOSTICS OF LISTERIOSIS: ISSUES AND POSSIBILITIES

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The prevalence of listeriosis, a serious frequent outcome of the disease and the similarity of clinical symptoms with a number of other zoonoses determine tasks of the laboratory diagnosis of this infection.

There are various methods of laboratory diagnosis of listeriosis: bacteriological, serological (RDHA, ELISA), polymerase chain reaction. Bacteriological and serological methods are used rather broadly, the PCR due to the relatively high cost of analysis - very large compared with less. Each of these methods is characterized by certain features and limitations. The similarity of symptoms of listeriosis and other zoonoses complicate not only the clinical diagnosis, but, subject to the limitations of the methods the laboratory diagnosis of listeriosis, a comprehensive interpretation of the results of laboratory tests and clinical and epidemiological characteristics of the particular case of the disease.

Materials and methods. There were examined 335 people - 231 patients hospitalized to the Almaty city clinical infectious hospital with symptoms that could help to suspect listeriosis and 104 almost completely healthy pregnant women. For bacteriological study there were taken samples of blood, excrements, urine, throat swab, and vaginal smear.

Results and discussion. We investigated on suspicion of listeria in male patients and all patients, regardless of sex, most often found ASL, 2 and 3 positions are occupied by RDHA and ELISA-IgG. In female patients and in the total group of patients in 4th place Listeria isolation and the 5th place - Detection of IgM isotype. The last two methods in the group surveyed male patients divided into 4 and 5 places. ASL IgG antibody isotype and positive RDHA among women of the patients were found with nearly the same frequency and share of 1, 2 and 3 places. In a study of healthy pregnant women applied methods for sensitivity were distributed quite differently.

The results obtained in this study suggest the following conclusions:
1. Bacteriological method is characterized by relatively low sensitivity, the interpretation of the isolation should take into account the possibility of healthy carrying of bacteria. The data obtained suggest that the differentiation of such diffusion is especially important when examining pregnant women.
2. By a combination of criteria specificity and sensitivity test for ASL during examination of patients with suspected listeriosis has an advantage over other applied diagnostic tests.
3. Detection of antibodies in the RDHA or IgG test system during pregnancy often give false-positive results. In a study of pregnant women, ASL test for listeriosis can be used for verification of positive results RDHA or IgG ELISA test system, and the first phase of the immunological detection of listeriosis.
4. Simultaneously to the findings of antibodies to LPS and listeriolisine O confirm the taxonomic specificity of these antigens.
5. Almost parallel to the identification of false-positive RDHA and IgG ELISA test system in pregnant women, as they have such detection results of different tests for antibodies in syphilis and brucellosis, shows that this effect of pregnancy is not specific to a particular infection, but typical for this physiological condition.

PRACTICAL ASPECTS OF CLAMIDIOSIS CAUSED BY CHLAMYDOPHILA PSITTACI

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The paper presents the results of the study on clinical, epidemiological, immunological and therapeutic aspects of zoonotic infection caused by Cl.psittaci. Among the people a disease caused by Cl. psittaci occurs with high frequency (61.4%) with characteristic of epidemiologic features of zoonotic infections. It is established that infection with the organism may occur in isolation only Cl. psittaci with the development of generalized chlamydial zoonotic nature (GCZN), as well as in combination with brucella, causing mixed infection (brucellosis GCZN +). It is established that the spread of monoinfection GCZN is almost the same nutritional and contact means (41% versus 57%) and infection with mixed infection in 80% of cases were observed mainly by contact.

Our studies demonstrated that infection with Cl. psittaci, a polymorphism of clinical manifestations with the main involvement in the pathological process of reticuloendothelial system (RES) (85% CI 72-93), osteo-articular apparatus (64% CI 52-78), peripheral nervous system (61% CI, 49-75). Also, there may be CNS involvement (9% CI 3-21), the phenomenon of conjunctivitis (15% CI 6-27), urogenital (14% CI 5-27) and cardiovascular (20% CI, 10-34). When mixed infections (brucellosis GCZN +) clinical symptoms characterized by a higher frequency of detection of arthritis, damage to the peripheral nervous system and urogenital caused by two pathogens (Brucella and Chlamydia). If an infection caused by Cl. psittaci, the phagocytic system, represented by neutrophils is not effective, especially in the combined flow GCZN and brucellosis, and is a weak chain in the immune system.

Lack of T-cell immune and phagocytic activity of neutrophils leads to dissemination and long-term persistence of the pathogen, which is the basis for the development of chronic pathological process in this disease. In case of mono-infection GCZN the most effective scheme of therapy was combination of doxycycline and cyclopheron within 4 weeks, with mixed infections (brucellosis GCZN +) - doxycycline, in combination with gentamicin and cyclopheron within 6 weeks. The complex of rehabilitation measures, including medical and social aspects, is essential to improve population's health status from zoonotic infections and improve quality of life.

SITUATION ON PARASITIC ZOONOTIC INVASIONS IN KAZAKHSTAN

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Parasitic zoonotic infections (echinococcosis, trichinosis, toxocara) - current global problem of medical parasitology and health care are causing significant damage to national economics and public health.

At the present moment echinococcosis in Kazakhstan is widespread infection, during almost 20 year an incidence increased in 4.5 times (1993 -1.3 per 100,000, and in 2010 – 5.8). Annually, more than 900 cases of echinococcosis are recorded, the average republican indicator of disease varies from 5,2-6,5 per 100 thousand population. Incidence in Southern-Kazakhstan (9,2-13,6) Zhambyl (10,3-11,8) and Almaty (7,9-8,2) oblasts above the average country level from 1.5 to 2.3 times . The same oblasts in accordance with ongoing annual zoning belong to the oblasts with the highest incidence. At present, the most unfavorable epidemiological and epizootic situation of echinococcsis developed in the Southern- Kazakhstan oblast, so that any terms and conditions for the growth of disease. Every year in 35-37% of cases recorded of the total cases of echinococcosis.

Analysis of the echinococcosis incidence has revealed the predominance of contingent people without occupation - 51% among those working professions - more than 8.0%, employees and medical staff - 3,4-1,4% (2008). Each year, the proportion of urban and rural residents is virtually identical: 48% and 52% respectively.

Factors influencing the unfavorable epidemiological situation of echinococcosis - a change in the system of veterinary control and animal breeding technologies, failure to population and economic entities of sanitary and veterinary rules for keeping animals, poor funding for catching stray animals and dogs dehelmintization, lack of communication involved services for the prevention of echinococcosis.

Activation of natural and synanthropic foci of trichinellosis in Kazakhstan was observed since 90's. In 1993-2004 in the whole country 415 cases of trichinosis were identified, with an incidence of 0.1-0.5 per 100 thousand population. The cases were characterized as grouping nature and registered on the territory of Almaty, Akmola, Kyzylorda, Northern-Kazakhstan, Kyzylorda and other oblasts. In recent years, the most unstable situation on the incidence of trichinellosis was observed in the Eastern- Kazakhstan oblast, where during 1998-2008 were registered 194 cases.

Toxocariasis is a relatively new problem of practical public health, the solution of which depends on the collaboration of medical and veterinary services, as well as putting into practice new methods of health care diagnosis, treatment and prevention of this infection. It is planned to study this problem with the introduction of the Regulations, which set out the requirements for the organization of prevention and control activities, diagnosis and prevention of toxocariasis.
Parasitic zoonotic infections of humans and animals are serious socio-economic and medical-veterinary problem, requiring new approaches to their diagnosis, treatment and prevention.

ECHINOCOCCUS AFFECTION OF INTRAMUSCULAR SPATIA

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Echinococcosis is a humen helminthiasis, a chronic disease characterized by the development in the liver, lungs and rarely other organs of solitary or multiple cystic formations caused by the introduction into the body and the development of the larvae of Echinococcus granulosus tapeworms and multilocularis and existing respectively in two varieties – gidatidic and alveolar.

Patient N. - 44 years, was admitted to the surgical department of the clinic IKTU with the complaint for the presence of swelling, discomfort and slight pain of the back chuck. Minor pain at movement and tension. Swelling on the back first discovered about a year ago. Been examined and not treated in this regard. On examination - general condition of the patient does not suffer, skin and visible mucous were normally colored and clean. Data from the side of respiratory and cardiovascular systems were normal. Locally - on the back, left in the chuck of a visually determined swelling, rounded in shape, measuring 6 x 8 cm skin over the tumor is not damaged, trophism was not broken, no signs of inflammation. Palpable tumor tight elastic consistency, tense, virtually painless, sticky. There is little discomfort during movement. In the analysis of blood sedimentation rate increased to 16 mm / h, total protein, 85 g / l, hemoglobin 108 g / liter. The remaining laboratory values within normal limits.

Given all the above data, a satisfactory general condition and laboratory data of patients assigned to surgical treatment. After treatment by aseptic of the surgical field, under local infiltration anesthesia a surgery was conducted. During the operation, revealed a dense formation with a diameter 7x8 cm puncture was evacuated about 100 ml of clear, amber-yellow liquid. In connection with suspected hydatid cyst, the patient made an autopsy of the latter. The cavity was flushed with 2% formalin solution with isotonic sodium chloride solution. Dissected fibrous sheath removed capsule then performed a classical cystectomia. Residual bed cyst drained intermuscular space latex strip. Sutures in the wound, aseptic dressing. The postoperative period was uneventful. The wound healed by primary intention.

Radiography of the chest - the lungs were detected as in normal condition. The patient was discharged home in satisfactory condition. Referred under observation of surgeon.

ECHINOCOCCOSIS PROBLEM IN THE STAVROPOL REGION

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Introduction. WHO calls echinococcosis as "forgotten disease of shepherds". However, since 2006, statistics of echinococcosis is increasing in many countries, especially in large cities. echinococcosis occurs in countries all over the globe. In the CIS disease is registered in Crimea, in Ukraine, the Central Asian countries, in Northern Caucasus, Moldova. In Russia, the situation remains difficult in respect of parasitic diseases. Over the last 5 years there has been three-fold increase of echinococcosis morbidity, where about 15% were children under the age of 14. echinococcosis is spread in 33 administrative territories of Russia among 88.

Materials and methods. We collected information about annual incidence on human and animal echinococcosis in the Stavropol region and the surrounding republics according to the Sanitary and Epidemiological Surveillance and slaughterhouses, as well as data from the scientific literature on modern methods of disease's immunological diagnosis and an integrated approach to its treatment.

Results. Echinococcosis is considered as a typical pathology of the southern regions of Russia, including Northern Caucasus and the Stavropol region. High incidence still remains at our neighbors in Dagestan, Northern Ossetia, Karachai-Cherkessia. An average echinococcosis incidence is 0.4 per 100,000, in Karachay-Cherkessia - 6.7; in Dagestan - 3.7, the Stavropol region - 1.8.

Conclusion. Thus, the problem of echinococcosis in southern Russia, including Stavropol region remains relevant for many years and still no sign of resolution. Attention to this disease is determined by a chronic and severe disease, late diagnosis due to the long asymptomatic, carrying out surgery in advanced stages, which entails the presence of postoperative complications, large economic losses in each case of the disease. Taking in account the inability to influence the susceptibility of humans and animals, control measures should be aimed at early detection of infected animals, proper disposal of their bodies, to ensure strict veterinary oversight of slaughterhouses. In order to improve early diagnosis in humans, the active introduction of immunological tests in the practice of medical institutions is crucial.

Treatment of patients should be integrated with the mandatory use of postoperative chemo therapy regardless on the radicality of surgery, especially when parasitic cysts located in multiple places and atypically. To solve the above problems need to unite the efforts of the veterinary and epidemiological services, surgeons, parasitologists and specialists on infectious diseases.

ANALYSIS OF HOSPITALIZED INCIDENCE AMONG PATIENTS WITH ANTHRAX IN THE SOUTHERN REGIONS OF KYRGYZSTAN IN 1999-2010

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The purpose of the work was study of clinical picture of coetaneous form of anthrax and microbiological characteristic of carbuncles in the southern regions of Kyrgyzstan. We examined 217 patients with coetaneous anthrax. The diagnosis was confirmed by the release agent of carbuncle, through skin-allergic tests with antraxin or clinical -epidemiological data. In addition to selection B. anthracis, produced study related to microflora of carbuncles. In most cases anthrax was spent in carbuncles variety of coetaneous form (93.1%), much less in bullous from (4.1%), edematous (2.3%), erysipeloid from (0.5%). During primary treatment anthrax was suspected only in 28.1% of cases. B. anthracis isolated from coetaneous lesions in 136 patients (62.7%), with only 42 cases in a monoculture, in other cases in association with concomitant micro flora (Staphylococcus, Staphylococcus epidermidis, Streptococcus, E. coli, enterococci, Neisseria). In 75.7% of cases, the pathogen was sensitive to penicillin in 8.1% of patients revealed intermediate sensitivity, 16.2% of the isolates were resistant to penicillin.

Antibiotic resistance of associated micro flora has been significantly expanded. Thus, the localization of anthrax carbuncle on necks, faces cause more severe disease than in lesions of the hands and lower extremities. Patients were hospitalized in the summer, the timing of admission on the third day and more days of illness, sex men, according to the severity of mild course, the severity of the coetaneous form of anthrax depends on localization carbuncle. Taking in account sensitivity to antibiotics of Bacillis anthracis and associated microflora in case of coetaneous form of anthrax, it is expedient to investigate the effectiveness of antibiotics. In the southern regions of Kyrgyzstan in patients with cutaneous anthrax more than 16% of the cases highlighted strains Bacillis anthracis resistant to penicillin. However, the majority of isolates susceptible to fluoroquinolone drugs. Effectively inhibit the growth of most isolates amoxiclave, doxycycline, rifampin, and fluoroquinolone (ciprofloxacin, ofloxacin, pefloxacin). Antibiotic resistance of associated miroflory much wider than Bacillis anthracis. The majority of patients from foci of outbreaks of coetaneous anthrax with Bacillis anthracis is isolated accompanying micro flora, staphylococci, streptococci, which are involved in the formation of the inflammatory focus.

ANTHRAX IN SOUTH KAZAKHSTAN

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Key words: anthrax, the incidence, epidemiology, case definition

Among the observed cases of anthrax, the largest number of patients registered in Shymkent - 39 (28,5%). Ill persons aged 30-39 and 40-40 years - 33 patients (24%), respectively.

In the group of probable and confirmed cases - 29 (24,5%), male dominated and accounted for - 89 (65%) patients (group of probable and confirmed cases as well - 78 (66%); occupational composition of the unemployed often hurt - 36 (26,2%) in the group of probable and confirmed cases - 27 (22,8%), but have been busy implementing the meat in the markets, selling skins. Patients hospitalized for an average of 6,26 ± 0,29 days of illness, (a group of probable and confirmed cases - to 6,1 ± 0,3); usually 4-7 days of illness - 79 (57.7%) (in the group of probable and confirmed cases - 72 patients (61%). Length of hospitalization averaged 22,5 ± 1,25 c / day (in the group of probable and confirmed cases - 24,5 ± 1,7). The disease

anthrax in humans was recorded more often in summer - 75 (54,7%) patients in the group of probable and confirmed cases - 61 (51,7%) patients, mostly in the month of July - 45 (32,8%), a group of probable and confirmed cases - 40 (33,8%) patients. Self-involved 56,2% of patients who were more of a proven group – 66,6%; healers often treated patients suspicious of the group – 33,3%.

Outcome of appeals to traditional healers, self-medication and treatment to surgeons were 15 deaths during the period 1970-2006 g.g. Bac.anthracis isolated from PKA at 76,6 ± 6,8% patients, serological diagnosis by anthrax was confirmed in 21,2 ± 1,5% of patients.

LANDSCAPE ZONING ON TULAREMIA IN THE SOUTHERN-KAZAKHSTAN OBLAST

T.K. Erubayev

The purpose of this study was to examine the modern space-biocenotic structure of natural foci of tularemia and features of the epizootic and epidemiological manifestations of the infection in the Eastern - Kazakhstan oblast in order to improve surveillance and monitoring of the epizootic tularemia. The study was based on archival (since 1942) and reporting records (for the period from 1999 to 2010) the Republican SES and the Department of State Sanitary and Epidemiological Surveillance of the Eastern-Kazakhstan oblast, as well as the results of the notes from cards of epidemiological survey centers and laboratory journals on testing material obtained from humans, animals and objects of external environment.

The investigations yielded the following **results:**

The relief of the Eastern- Kazakhstan oblast (EKO) is characterized by great diversity. Its territory contains 50 types of landscapes: desert in the south, the steppe from the west and north, taiga in the east and nival in the highlands of the Altai and Saur. Their foothills are rich in many foothill streams and streamlets spring food, soft beaches, rich vegetation and hydrophilic are a place of concentration of rodents and ectoparasites. From the south-east to north-west region flow Irtysh river. Along the southern border lakes are located. The fauna of natural foci of tularemia is diverse: water voles, domestic and wood mice, hamsters, muskrat.

Among 70 species of small mammals in the region, we have tested for tularemia microbe carrier 49 species, and its presence was detected in 27. The largest distribution and abundance in natural habitats are forest and field mice, voles water, and ordinary domestic mouse, shrew, rats. The greatest importance of invertebrates as carriers were identified 7 species of ticks (the most common *Dermacentor marginatus, Dermacentor pictus, Ixodes persulcatus*), 12 species of mosquitoes, 14 - flies, 20 - fleas, 16 - gamasid mites.

The Eastern-Kazakhstan oblast has four natural focus of tularemia, two of these streams and foothill-two - floodplain swamp type.

The incidence of tularemia in humans in EKO is associated with the epizootic activity of natural foci. The main sources of infection in diseased human tularemia in the EKO are the water vole, rodents, muskrats and other small mammals. Transmission factors of tularemia infection are infected with the causative agent of raw vegetables, straw, ticks (bite), etc.

All foci of tularemia are located on the outskirts of villages in gallery area, while everywhere in the centers that may include rodents (mice, rats). In the epidemiological study established the presence pockets of holes in the foundations of houses, farm buildings, baths. In some gardens, where there are planting fruit crops, there is intense grazing the bark of trees and shrubs.

Thus, given the continuing epizootic in certain regions, fragmentation prevention, treatment and pest-rodent services (private companies), we can expect an unfavorable prognosis for tularemia epidemiology of EKO.

TULAREMIA IN STAVROPOL REGION. EPIDEMIOLOGY AND CLINICAL PICTURE

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Background: Tularemia in the recent past has been one of the most common natural focal diseases in Russia, which determined researchers' attention to this dangerous infection. At present, tularemia in the Russian Federation is recorded annually, and in some years the nature of the infection taking epidemics due to activation of its natural foci. In recent years, the incidence of tularemia mainly was sporadic, with the exception of the outbreak in August and September 1999 in the Republic of Dagestan, where 64 people became ill.

Purpose and objectives of the study: Reveal clinical and epidemiological features of tularemia in Stavropol region.

Materials and methods: data from SES, research institutes, hospital and outpatient records of patients with tularemia during 2003-2007. G.P. Rudnev classification (1960) and ICD -10 (WHO, 1995) was used.

Results and discussion: from 2003 to 2007 in the Stavropol region registered 32 patients with tularemia, that is in 32 times more than in the Republic of Dagestan, in 10.7 times more compared with the Republic of Kalmykia, in 6.4 times compared with Volgograd region and in 4 times compared with Krasnodar region. Stavropol region belongs to the territory with a high incidence. Since 2003, there is activation of natural small foci of tularemia and, as a consequence, the emergence of sporadic cases of disease among the people. From 2003 to 2007 in the province recorded 32 patients with tularemia. With the disease were recorded not only in the districts of the region, but also in Stavropol. In general, all cases were associated with hunting and hare cutting.

By analyzing the history of patients' diseases, the most common clinical form of the disease was bubonic, at least - lung. In general, the clinical picture of tularemia, did not differ from the classical one. The duration of febrile period was 27,3 ± 8 days. Lymph nodes are increased by 6 ± 1 day and reached a size of 4x6 cm for 13 ± 2,5 days. 2-3 days before the primary affect bubo aspirates detected in the form of ulcers or pustules, which are often mistaken for cold sores. At the height of the disease in 50% of patients had enlarged livers, at 37.5% - the spleen, in 31.3% of the cases mentioned festering bubo aspirates. All patients received the hospital too late - to 12,7 ± 3,5 days, medical care treated as a rule to 5,2 ± 2,1 day titers of antibodies in RA and RDHA appeared after 14 days of illness that differ from published data.

Conclusions: the analysis of disease tularemia in the Stavropol region showed that:

- ✓ mass of human disease ceased. However, the epidemic of tularemia manifestations tend to continue in the form of local outbreaks and sporadic cases;
- ✓ the preferred route of human infection is direct contact with infected rodents and food;
- ✓ the clinical course of disease is not very different from the classical one;
- ✓ physicians outpatient services is not alert to this disease;
- ✓ agglutinins and haemagglutinins appeared later, only the second week of the disease, which also hampered the timely diagnosis of the disease.

EFFICIENCY OF IMMUNE PROPHYLAXIS OF PLAGUE

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Significant place in the system of epidemiological surveillance of plague has a specific prophylaxis of infection. In the worldwide endemic foci of plague to present time they continue to use killed vaccines, although their effectiveness is obviously weak. In the Republic of Kazakhstan and the CIS a live plague vaccine dry EV is widely used, that commercial production is carried out at the Kazakh Scientific Center for Quarantine and Zoonotic Infections after M. Aikimbayev since 1953.

Vaccinations against plague are carried out routinely and on epidemiological indications. The vaccine is used only once and applied on surface of skin. Duration of immunity produced by the anti-plague vaccine is 1 year. At least in the literature, there is no mention of it. Under experimental conditions, there was also no reason to assume that the live vaccine has sensitizing properties. Nobody among vaccinated not reported about any disorders that could lead to break the usual classes, despite on the fact that some of the temperature was raised but all of them experienced local reaction.

The most reliable criterion for assessing a quality of the vaccine is its ability to protect in low-doses animals against infection with a virulent strain. Immunity that occurs in experimental animals after vaccination live plague vaccine is not characterized by the accumulation of serum antibodies detected by conventional serological methods. People vaccinated with live vaccine is also not accompanied by the appearance of antibodies against which to judge the change or immunological reactivity. However, for practical public health is important to identify changes occurring in the body as a result of vaccination. Study of skin reactivity in guinea pigs vaccinated with live vaccine showed that along with the immunological reorganization of the organism, is an allergic alteration that is found increased sensitivity to the introduction of allergene, similar results were obtained in humans.

Such early development of resistance is not due humoral factors, but mainly by the presence in tissues and organs of vaccinated animals and microbes of specific reactive changes (vaccine process).

Thus, the analysis of literature data and results of control tests of the vaccine live plague EV at the Kazakh Scientific Center for Quarantine and Zoonotic infections clearly indicate that the vaccine produced by the center helps to create a busy post-vaccination immunity in vaccinated persons. Only a properly conducted immunization records and epidemiological monitoring will give a proper assessment of such activities as specific vaccines against plague with live vaccine.

CONGO-CRIMEAN HEMORRHAGIC FEVER IN SOUTHERN-KAZAKHSTAN OBLAST

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In 2009, in Kazakhstan there were 30 cases of the Congo - Crimean hemorrhagic fever: in the Southern-Kazakhstan and Kyzylorda and Zhambyl oblasts. Southern Kazakhstan is one of the disadvantaged regions of the Republic of Kazakhstan on the natural foci of CCHF, aided especially the geographical landscape of the region, climate and circulation in the nature of virus-infected ticks.

Previously, activation of natural foci mainly recorded in the Suzak, Otrar, Ordabasy, Sairam and Baidibek districts, starting with 2006, there were foci in Saryagash, Makhtaaral, Shardara districts and the city of Turkestan, that is a natural focus area has spread to the south, from desert to steppe zone.

Epizootic situation on Congo - Crimean hemorrhagic fever in Turkestan remains troubled by the presence here of a natural focus of infection. CCHF is a hotbed of climate zone favorable for the development of ticks that transmit the disease. Maintenance of high numbers of mites favored by many species of warm-blooded feeders, including livestock.

Given the epizootic and epidemiological situation in the territory of South Kazakhstan region in order to stabilize the situation in CCHF should be following preventive measures with the participation of all interested agencies and services: local authorities, health care, Sanitary and Epidemiological Surveillance, veterinary surveillance, anti-plague services.

Conclusions:

1. Necessary to study the fauna and ecology of mites on various terrains - from desert to mountainous terrain, because currently does not exist on SKR detailed maps of the distribution of ticks.
2. With the accumulation of sufficient data that is necessary to develop short-term forecasts for the number of ticks of different landscapes, using weather data, the number of rodents and other animals, especially given the agriculture and livestock.
3. With the accumulation of sufficient data to develop short-term forecasts for the number of ticks of different landscapes, using weather data, the number of rodents and other animals, especially given the agriculture and livestock.
4. Annual monitoring in areas of CCHF will consistently pursue anti-ticks events that lead to a significant improvement of the current epidemiological situation with significant cost savings.
5. That is necessary to have list of available registered insecticides
6. To conduct monitoring of resistance to acaricydus among ticks.
7. Annual training on identification of ticks.

PREVENTION OF RABIES IN EASTERN KAZAKHSTAN

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The purpose of current study was study of epidemiological manifestation of rabies in the Eastern-Kazakhstan oblast and influence of preventive measures on its dynamics
After study we obtained following **results:**

In the Eastern- Kazakhstan oblast (EKO) in the past 30 years, human cases of rabies have been reported. Every year with salivation and bites of animals a large number of people visited medical institutions. Thus, according to historical data from 2001 to 2011, 46 885 people visited doctor for care, including 13 170 children under the age of 14 or 28.1% of total number. 54.8% were males and 45.2% - women.

During these years among total number of people seeking for care against rabies, only 143 people have refused the shots, but in 2010-2011 nobody refused. Epizootic situation on rabies in recent years is poor. Thus, in 2003 in fact suspected of rabies study of pathological material from 176 animals with negative results of a study in 2005 of 172 suspect identified 16 cases of confirmation of the diagnosis, but in the next 3 years of 313 suspected diagnosis was confirmed in 41 cases. In 2009, the epizootic trouble was observed among animals in Urjar area (4 cases), and in 2010 in 5 districts of the oblast: Ayagoz, Urjar, Beskaragai, Kurchum, Tarbagatai. Among suspected to rabies 28 cases among animals, 11 cases were confirmed.

Thus, timely and effective implementation of preventive work to prevent rabies in humans, even in unfavorable epizootic background.

THERAPY AND PREVENTION OF TRICHOPHYTIA AMONG CAMELS

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Introduction. Population of camels in the country according to the Agency of the Republic of Kazakhstan on statistics for 2010 has more than 158 000 animals. For the full development of the industry prevention of fungal particularly dangerous infectious disease like trichophytia is essential.

Materials and methods. Monitoring of the epizootic situation in trichophitia among camel studied in camel farms of Almaty, Mangystau, Kyzylorda and Southern- Kazakhstan oblasts by collecting of anamnestic data, examination of sick animals in the herd, clinical examination of animals of different ages and mycological studies of pathological material. In studies for the control of infection were used the most immunogenic epizootic homologous field of culture, isolated from sick camels.

Conclusions.

In the Republic of Kazakhstan under supervision of the Doctor of medical sciences, laboratory on mycology of LLP “KazSRVI” was developed complex alive inactivated quinquivalent vaccine against camel’s trichophitia. Indicated vaccines against livestock’s trichophitia is used twice with an interval in 14 days according to the recommendations. Strained immunity among vaccinated animals is created with prolongation during 12 months.

At present, for the manufacture of biological products used against trichophitia are used strains Tr. sarkisovii F-0319 and Tr. sarkisovii F-0080. These strains of the fungus are deposited in the laboratory for the study of microbial gene pool LLP “KazSRVI” and get them pre-and patents innovative Republic of Kazakhstan. Against dermatomycoses of animals there were made ointments and solutions for primary treatment of ringworm, as well as disinfectant agents against bacterial and fungal infections.

For prevention and treatment of trichophitia among camels in Kazakhstan they use live and inactivated monovalent vaccines against these infections.