Clinical manifestations of imported cases of dengue fever

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ABSTRACT

INTRODUCTION

Dengue fever - an acute viral disease. High incidence in the world and the possible deaths, migration from tropical countries, the development of the tourism industry, the lack of specific clinical manifestations, low alertness of health professionals, lack of or incomplete data collection of epidemiological history, the lack of effective etiotropic treatment and prevention - all this leads to the relevance of the topic . In the countries of the Commonwealth of Independent States, and in Kazakhstan, to date, registered only imported cases of fever. In Almaty for the period 2012-2014 y. were registered and confirmed 6 cases, including 1 - pin.

METHODS

A retrospective analysis of case histories of patients with the confirmed cases of dengue fever

RESULTS

During the period of 2012-2014 y. in Almaty reported 5 imported cases of dengue fever. The disease was detected at the end of November to May. In most cases the disease was imported from Thailand. In all cases, the clinical picture is observed: the rise of body temperature in the first 3 days, weakness and redness of the throat, rash, lymphadenopathy. In all cases, in hemogram were observed: leucopoenia, thrombocytopenia, occurs on the 5-7 days of illness. All cases were laboratory confirmed.

CONCLUSION

The clinical picture of imported cases of dengue fever occurs with a rise in body temperature, weakness and hyperemia of the throat, rash, lymphadenopathy, facial flushing, nausea, vomiting, loose stools, fever and pain in the joints. At this moment, a specific treatment for this disease and effective prevention has not been developed. Due to the growth of tourist travel for citizens in different regions of the world, there are imported cases of dengue fever in the Republic of Kazakhstan, which requires inspection and surveillance of immigrants from endemic regions.

KEYWORDS: dengue fever, imported cases, clinical manifestations, dengue virus, mosquitoes of the genus Aedes, tropical countries, epidemiological history

INTRODUCTION

Dengue fever - an acute viral disease, occurring against the backdrop of high-rise in body temperature, muscle and joint pain, enlarged lymph nodes, and in some cases the development of hemorrhagic syndrome.

The disease was first described by scientist Bilon in 1779 year. He described the epidemic on the island of Java, calling it a "joint fever" on the basis of clinical symptoms, myalgia and arthralgia. A year later, a detailed description of fever residents of Philadelphia gave Rush [1]. Only in 1869 y., at the Royal College in London, the disease was named "dengue" (from eng. "dandy"), emphasising the characteristic gait dapper these patients due to pain in the joints and muscles.

Fever caused by dengue virus belonging to the genus Flavivirus, family Togaviridae, is an RNA, has 4 serotypes. [2, 3]. The causative agent is transmitted by mosquitoes genus Aedes, i.e. transmissibility. [4].

According to WHO, the world each year become ill more than 50 million people, about 20,000 of them die. During the period of 2014 y. in the world recorded 158,550 cases of dengue, of which 48 cases were fatal. [5].

High incidence in the world and the possible deaths, migration from tropical countries, the development of the tourism industry, the lack of specific clinical manifestations, low alertness of health professionals, lack of or incomplete data collection of epidemiological history, the lack of effective etiotropic treatment and prevention - all this leads to the relevance of the topic.

In the countries of the Commonwealth of Independent States, and in Kazakhstan, to date, registered only imported cases of fever. In Almaty for the period 2012-2014 y. were registered and confirmed 6 cases, including 1 - pin.

METHODS

The purpose and objectives: examine imported cases of dengue registered in Almaty and describe the clinical picture of the disease.

A retrospective analysis of case histories of five patients, who were treated in Municipal Clinical Hospital of Infectious Diseases in Almaty for the period 2012-2014y., with the confirmed cases of dengue fever.

RESULTS

Thus, for the period 2012-2014 g in Almaty reported 5 imported cases of dengue fever, of which 3 cases in 2013 y., 1 case in 2012 y. and 2014 y.. The disease begins to register from the end of November to May (when the citizens began to travel to tropical countries), of which 2 cases were in March-April. Studying the epidemiological history, it was found that in most cases the disease was imported from Thailand (2 cases), 1 case of Indonesia, Malaysia and Singapore. In the structure of cases by sex, males (4 cases) and 1 woman. Age of cases was mainly 46-50 years. It should be noted that the incidence of dengue fever does not depend on gender and age. Susceptibility to fever is high.

Divergence of diagnoses: of the sending organisation occurred in 4 cases out of 5 (in case, where was diagnosed with dengue, it was previously confirmed by laboratory in Pattaya (Thailand)), on admission - in 2 cases.

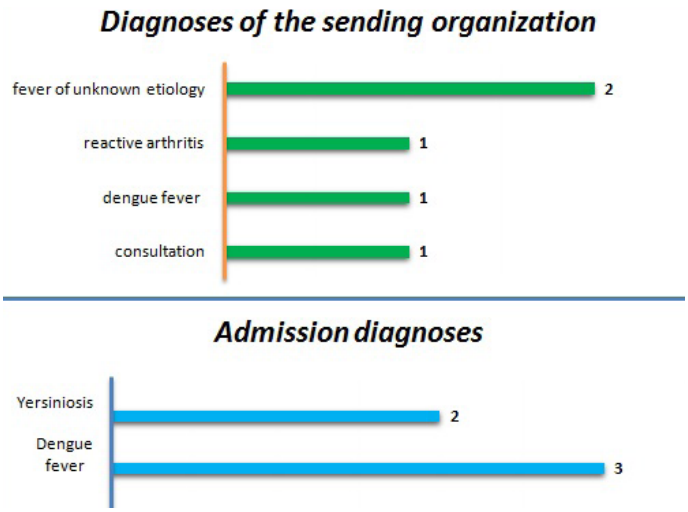

Diagram 1. Divergence of diagnoses

The condition of patients regarded as moderate in 4 cases, severe - in 1.

In all cases, the clinical picture is observed: the rise of body temperature in the first 3 days to 39-40 dg, weakness, and hyperemia of the throat, rash (on the limbs and trunk) , lymphadenopathy (especially cervical lymph nodes). On average - were observed in patients with the following symptoms: flushing of the face, nausea, vomiting, diarrhea, fever and pain in the joints; almost no: dizziness, sore throat, nasal congestion. Rash occurred an average at 3 day of illness, which is consistent with the literature [12,13].

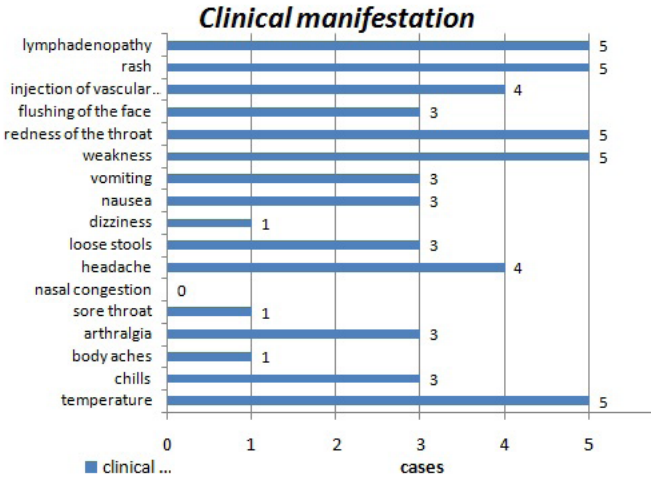

Diagram 2. Clinical manifestations

In all cases, in hemogram were observed: leukopenia (1.9-2.7 × 10 9 / L), thrombocytopenia (102-168 × 10 9 / L), at 5-7 days of illness. In coagulogram abnormalities have not been identified. All cases were laboratory confirmed: in 4 cases detected Ig M, of which two cases confirm the diagnosis consistent with the literature of the period of viremia (1-5 days of illness), in two cases was discovered Ig G at 8-9 days of illness.

Treatment was carried out, in all cases, pathogenetic, symptomatic, in one case - antiviral therapy: “rebetol” 200 mg to 2 capsules 3 times a day. Presented on the chart shows a comparison of patients receiving and not receiving “rebetol”, in several indicators (duration of fever, rash, spent bed days).

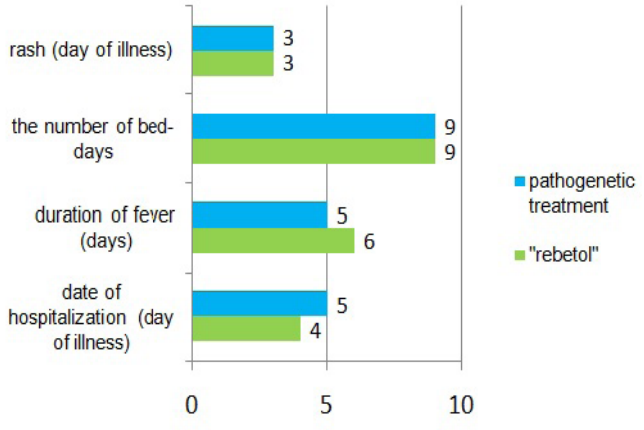

Diagram 3. Comparison of patients treated with pathogenetic therapy and in patient receiving “rebetol”

Do not show significant differences compared patients treated with pathogenetic treatment and in patients receiving "rebetol" both in clinical manifestations, and in the spent bed-days

DISCUSSION AND CONCLUSION

The clinical picture of imported cases of dengue fever occurs with a rise in body temperature, weakness and hyperemia of the throat, rash, lymphadenopathy, facial flushing, nausea, vomiting, loose stools, fever and pain in the joints. At this point, the specific treatment of the disease and effective prevention has not been developed. Due to the growth of tourist travel for citizens in different regions of the world, there are imported cases of dengue fever in the Republic of Kazakhstan, which requires inspection and surveillance of immigrants from endemic regions.

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