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Challenge of misdiagnosing Dengue fever in the practice of a family doctor in Jamaica

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Background. On 3 January 2019, the International Health Regulations National Focal Point of Jamaica notified of an increase in dengue cases in Jamaica. Identification of problems associated with timely and correct diagnosis of Dengue fever will improve the management of patients by the family doctor, increase his awareness of this disease, and introduce new methods of diagnosis and prevention, thereby improving the prognosis of a patient with Dengue fever.

Objective was to analyze the causes of misdiagnosing and late diagnosis of Dengue Fever in Jamaica in the practice of a family doctor, to study the

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Республиканская конференция с международным участием, посвященная 80-летию
со дня рождения Т. С. Морозкиной: ФИЗИКО-ХИМИЧЕСКАЯ БИОЛОГИЯ КАК ОСНОВА
СОВРЕМЕННОЙ МЕДИЦИНЫ, Минск, 29 мая 2020 г.

factors that are associated with a poor prognosis for the patient with this disease.

Materials and methods. We performed a systematic analysis the prevalence, course and outcomes of Dengue fever. We studied suspected, presumed and confirmed dengue cases in 2018 and 2019 in Jamaica.

Results. There has been a reported epidemic of Dengue fever in Jamaica. In 2018, a total of 986 suspected and confirmed cases of dengue including 13 deaths have been reported. In most cases Dengue fever presented in nonspecific symptoms resembling any viral or bacterial infection. Mild forms of dengue can often be manifested as flu-like illness with symptoms such as high fever, severe headache, pain in the area behind the eyes, muscle and joint pain, nausea, vomiting, or a rash. Severe forms of Dengue Fever include dengue hemorrhagic fever or dengue shock syndrome, which are characterized by severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue, anxiety and blood vomiting.

Detection of anti-dengue IgM using an enzyme-linked immunosorbent assay (ELISA) was an affordable tool for the routine diagnosis of dengue. Since the end of 2018, the polymerase chain reaction (PCR) has been used to diagnose Dengue, which facilitated the correct diagnosis of the disease.

The mortality rate was below 1% with early diagnosis of this pathology and proper case management. In the late diagnosis and in the severe form of Dengue fever, patients did not receive appropriate treatment; therefore, the mortality rate in this category of patients was up to 20%.

Conclusions. Incorrect and untimely diagnosis of Dengue fever was due to a wide variety of nonspecific symptoms, resembling any viral or bacterial infection. In most cases, mild form of the diseases proceeded as a flu-like illness. The use of ELISA and PCR simplifies the diagnosis of Dengue fever, although PCR requires special laboratory equipment and equipment, as well as a thorough assessment of various protocols in the field. In the past, reagents for testing for dengue infection were not available, and most countries still rely on reference laboratories, which may be several miles or in another country. Virus isolation is time consuming and it can be a huge disadvantage. Although there is no specific treatment for Dengue fever, the mortality rate can be significantly lower with proper case management and timely diagnosis using serological tests.