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Lifestyles and Clinical Features of Dengue Infection in a District in Peru

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ABSTRACT
The objective of the research was to determine the relationship between lifestyles and clinical characteristics of dengue infection that have been studied from the fields of traditional medicine as independent medical-social concepts in the context of District Hospital Jerusalem in Trujillo, Peru in 2016-2018. The research was a descriptive-correlational study, with a sample of 74 patients with a confirmed diagnosis of dengue during the years 2016-2018. The results showed that 90.5% of lifestyle patients witha confirmed diagnosis of dengue infectionare unhealthy. Likewise, it is observed that lifestyles have a significant relationship ($p<0.05$) with the characteristics of the clinical features of dengue infection:asymptomatic, fever with variable intensity with duration between 2 to 7 days, fever with nonspecific digestive symptoms lasting between 2 to 7 days (and abdominal pain.Thosethat show that generally unhealthy lifestyles are related to the characteristics of the clinical picture of dengue as.
Keywords: Lifestyles, clinical features, dengue infection.

INTRODUCTION
Dengue is an infectious viral disease related to poverty, lack of nutrition and basic services such as adequate shelter, sewerage, sanitation, drinking water and adequate urban development. One of its aggravating factors are bad lifestyles such as lack of cleanliness for the conservation and storage of water, poor solid waste disposal, resistance to vector controls, ignorance of the symptoms and signs of the disease and continuous transfers to endemic places. It was estimated that 2.5 million people, equivalent to two-fifths of the world's population in areas at risk of dengue and that more than 100 countries had already reported the presence of infectious diseases such as dengue in their territories (WHO/PAHO 2017). Europe is already facing dengue outbreaks with cases reported in France and Croatia in 2010 and in three other countries. In 2012, more than 2000 cases were reported in Portugal's Madeira archipelago. In 2016 cases increased substantially in the Philippines and Malaysia with 375,000 cases. The Solomon Islands had 7000 suspected cases. In Africa, Burkina Faso reported an outbreak with 1061 probable cases (WHO, 2016). Latin America, Southeast Asia and the Western Pacific together recorded more than 3.2 million cases in 2015 (PAHO, 2015). As of 2017, there were 2.35 deaths in Latin America alone, with 1032 deaths. Latin America is the most affected by dengue in its most severe form, it is a viral infectious disease, transmitted by bite of the mosquito *Aedes aegypti*, caused by any of the four known serotypes of the dengue virus. In countries such as

Ecuador Casco (2017), and Cedeño et al (2017) agree in reporting that although most of the population knows the clinical characteristics of dengue, and the preventive measures to avoid it, their lifestyle is not to practice these measures. Something similar reported Sánchez, et al (2017) in the inhabitants of the Department of El Meta-Colombia, whose main characteristic is bad lifestyles. Peru is no stranger tothis problem, so Niño and Yong (2018)reported that the inhabitants ofTuman, Lambayeque-Peru 69.2% recognize symptoms and signs of the disease, however their lifestyles present insufficient preventive practices-The Ministry of Health (MINSA), noted that the casuistry has been increasing in the last 3 years from 5,994 cases in 2015 to more than 7 thousand cases in 2017 with a case confirmation greater than 37% and 47% of probable cases. Of these, 19.3% were cases with warning signs and 0.3% corresponded to the severe form. (MINSA, 2015; Helmet , 2017). In 2017 the departments of Piura, Tumbes, Lambayeque, La Libertad, Junín and Huánuco were the most affected, and in June 2018. The general objective of this research in this sense, is to determine the relationship between lifestyles and the characteristics of the clinical features of dengue infection in patients with confirmed diagnosis of the Jerusalem District Hospital, 2016-2018.

METHODOLOGY

The research was a descriptive-correlational study. The research was carried out at the Jerusalem District Hospital in the La Esperanza District. The study sample was 74 patients with a confirmed diagnosis of dengue fever during the years 2016-2018. A lifestyle survey and a data recording guide on the characteristics of the clinical features of dengue infection were applied. Both instruments were validated by the Judgment of 7 Expert Judges obtaining a Coefficient of Concordance under the Aiken format greater than 90%. For the analysis of data from the Lifestyles survey, the pilot study reaching a Cronbach's Alpha Coefficient of 0.960 was used, with the support of the STATISTICAL PACKAGE SPSS-V22 in Spanish. For the hypothesis test, statistical analysis was applied by means of the Chi Square test and contingency coefficient.

RESULTS

Table 1 shows that the lifestyles of patients with a confirmed diagnosis of dengue in the Jerusalem District Hospital, during the years 2016 to 2018, obtaining that 90.5% of patients diagnosed with dengue infection are unhealthy. Likewise, it was evidenced that lifestyles have a significant relationship ($p<0.05$) with the following characteristics of the clinical features of dengue infection: asymptomatic, fever with varying intensity and lasting between 2 to 7 days, fever with nonspecific digestive symptoms lasting between 2 to 7 days and abdominal pain. This research assumes, as primary valuation criteria for the present discussion, the postulates of sociology, anthropology and modern medical psychology on the concurrence of factors to form ferric fields of time-context and movement (Guha, 2015). The characteristics of the clinical features of dengue can be explained from two different perspectives: The biomedical perspective refers to the way in which the processes occur in the incubation period of the virus, from the time it is ingested by the female mosquito during its feeding through the infestation of the mosquito's midgut and subsequently the systemic spread of a period of 8 to 12 days, so that it can be transmitted to other humans during the bite and subsequent feeding of the mole, based on the analysis of the epidemic in Africa and Asia where lifestyles have been correlated with the symptomatology of dengue: fevers with headache, vomiting and severe muscle aches lasting 2 to 7 days, as well as other characteristics of the clinical picture of dengue. The second cosmogonic perspective of social medicine that explains the results through the way in

which physical phenomena develop in the environment, generating anisotropies in the ambient temperature to promote special conditions for the systemic and epidemiological spread of the disease to occur (Castello, 2015), based on the patterns of individual and collective behaviors that configure the conditions for the abundance and biological distribution of vectors, considered products of life choices, would define the symptomatology and / or intensity of the clinical picture of dengue. That is, they would define the intensity of abdominal pain, fever, nonspecific digestive symptoms lasting between 2 to 7 days and according to Cockerham (2005) probably force a more powerful influence than we can imagine on the development of the disease at the socio-epidemiological level (WHO/PAHO, 2017; Cockerham 2005).

Table1 Relationship between lifestyles and the characteristics of the clinical features of dengue infection in patients with a confirmed diagnosis of dengue in Jerusalem District Hospital, 2016-2018.

Characteristics of the clinical features of dengue infection		Lifestyles						Sig. X^2 / Value CC
		Healthy		Unhealthy		Total		
		Nº	%	Nº	%	Nº	%	
Asymptomatic	Yes	03	4,1	07	9,5	10	13,5	0,017
	No	04	5,4	60	81,1	64	86,5	
	Total	07	9,5	67	90,5	74	100,0	0,267
Fever with variable intensity lasting between 2 to 7 days.	Yes	04	5,4	58	78,4	62	83,8	0,044
	No	03	4,1	09	12,2	12	16,2	
	Total	07	9,5	67	90,5	74	100,0	0,227
Fever, headache, vomiting, and severe muscle pain for 2 to 7 days.	Yes	07	9,5	64	86,5	71	95,9	0,568
	No	00	0,0	03	4,1	03	4,1	
	Total	07	9,5	67	90,5	74	100,0	0,066
Fever with nonspecific digestive symptoms of 2 to 7 days.	Yes	02	2,7	54	73,0	56	75,7	0,002
	No	05	6,8	13	17,6	18	24,3	
	Total	07	9,5	67	90,5	74	100,0	0,334
Taste disorders	Yes	01	1,4	31	41,9	32	43,2	0,104
	No	06	8,1	36	48,6	42	56,8	
	Total	07	9,5	67	90,5	74	100,0	0,186
Redness of the larynx	Yes	01	1,4	03	4,1	04	5,4	0,275
	No	06	8,1	64	86,5	70	94,6	
	Total	07	9,5	67	90,5	74	100,0	0,126
Abdominal pain	Yes	04	5,4	01	1,4	05	6,8	0,000
	No	03	4,1	66	89,2	69	93,2	
	Total	07	9,5	67	90,5	74	100,0	0,544
Rashes	Yes	01	1,4	30	40,5	31	41,9	0,120
	No	06	8,1	37	50,0	43	58,1	
	Total	07	9,5	67	90,5	74	100,0	0,178
Detection moment	F. Febrile	07	9,5	53	71,6	60	81,1	0,406
	F. Critic	0	0,0	04	5,4	04	5,4	
	F. Recuperative	0	0,0	10	13,5	10	13,5	0,154

	Total	07	9,5	67	90,5	74 100,0

CONCLUSIONS

Lifestyles at a general unhealthy level are mostly related to the characteristics of the clinical features of dengue infection such as: asymptomatic, fever with variable intensity with duration between 2-7 days, fever with non-specific digestive symptoms lasting between 2-7 days and abdominal pain.

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