04 -"FOLDING BODIES": THE HISTORY OF CHIKUNGUNYA EPIDEMICS AND OUTBREAKS IN BRAZIL.

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Introduction

In the late 1930s, two major malaria epidemics in northeastern Brazil, Fortaleza and Natal, worried the government and also the US that it intended to set up military bases in the region because of the advent of the Second World Cup. An agreement between Getúlio Vargas, then president of Brazil, and the Americans allowed joint action to tackle malaria in the region. Malaria with its fevers left men unfit to work and in the belligerent period also to war. Malaria hit some regions of the planet that was the scene of the conflict. Northern Italy, the scene of countless battles, was also under malaria protection. Experience in northeastern Brazil has produced a tradition of combating and controlling malaria created in Brazil, with the eradication of the Anopheles gambiae vector in 1942 as a landmark. Even with the successful eradication of the Anopheles gambiae vector, malaria was largely endemic. national territory, also presenting malaria epidemics in the country. The situation changes dramatically from the end of the Second Great World, with the massive use of dichlorodiphenyl trichloroethane (DDT). There were decades of malaria confrontation throughout the national territory until the isolation of the disease in the northern region partially affecting the development of the region.

From 1980 we will see the epidemics of dengue in large metropolitan centers grow. In the summer season, the Aedes aegypti mosquito multiplies reaching an increasing number of people, removing them from professional activities and some cases leading to deaths. The growth of dengue epidemics has brought new types of the increasingly serious disease affecting bodies of all age groups, gender as well as social class. A typically interdependent disease that needs to be thought collectively. However, it was in the 21st century that we experienced bitterly new epidemics caused by Aedes, which transmitted different viruses but left more serious marks on their bodies. In 2015, Zika virus appears in the country, initially seen as a milder version of dengue, quickly loses this naive impression when babies begin to be born in maternities in northeastern Brazil with cranial anomalies. Microcephaly becomes the cruelest face of the Zika epidemic that explodes in the mid-first decade of the 21st century.

The first case of chikungunya was recorded in 1950 in Tanzania. The first officially recognized epidemic occurred in Africa between 1952 and 1953. Chikungunya is known in the region as the disease of "those who bend" in Swahili, one of Tanzanian languages, an allusion to the curved appearance of patients, who could not lift their bodies because of the characteristic joint pain (POWERS and LOGUE, 2007). From the epidemic in Africa in the early 1950s, notification of chikungunya became more frequent in other regions of the world. Indonesia, Taiwan, Singapore, Malaysia, Sri Lanka, Maldives, Kenya (2004), Camores (2005), Mayotte, Seychelles, Mauritius, Reunion (2005-2006) and India (2006), and, to a lesser extent, Italy, Martinique, Guadeloupe, French Guiana, the United States, and Brazil (in 2010).

In 2014, the Ministry of Health confirmed the first cases of transmission of the virus in the national territory. The victims were a father and daughter who lived in the city of Oiapoque, Amapá. The first victims of the chikungunya virus did not travel abroad. In this sense, the contamination occurred in the national territory. However, three months before the discovery of the first internal contamination of the chikungunya virus in Brazil, on June 9, 2014, the São Paulo State Department of Health identified six imported cases of chikungunya infection in Brazilian army soldiers returned from Haiti on the 5th of the same month. Chikungunya in Brazil was initially treated in the press with discourses very close to other neglected diseases and epidemics as the main example dengue. In this sense, the historical analysis of the "folding bodies" is fundamental for the construction of projects that aim at human development in all its spheres: social, political and economic.

Goals

Main

- To analyze the history of chikungunya epidemics and outbreaks in Brazil.

Secondary

- Understand how information released in the press about chikungunya epidemics and outbreaks impacts disease control and control actions.

- Check the epidemics of the 21st century whose protagonist has again the mosquito that affects the organization and functioning of the city.

Methodology

Analytical research. That is, analytical research uses the in-depth study and evaluation of available information in an attempt to explain the context of a phenomenon. Analytical research is divided into four methods: historical, philosophical, review, and meta-analysis. The historical method consists of an investigation of past events using descriptive and analytical procedures. When the historian is only interested in preserving the records of events and facts, the historical-descriptive method is used. The main purpose of this method is to map past experience, to locate in time and space a person, trend, event, or organization in order to provide answers to particular questions. Understanding and meaning of past events is part of the historical analytical method that can provide a better understanding of the present. The study the two methods: the analytical and the descriptive. The main methodology of work is based on historical and theoretical analysis, confrontation of primary and secondary sources.

Results

- Historical knowledge of epidemic treatment and control actions can help in the interpretation of our current context, allowing us to understand real social commitments produced by neglected diseases.

- Cataloging and identification of public and private libraries, collections, funds and archives that have documentation on research topics.

- Organization and mapping of documents, data and information on chikungunya outbreaks and epidemics.

Discussions

"Bending bodies" in the world

The vector the transmitter of chikugunya virus is Aedes aegypti. A species of mosquito of the Culicidea family, originating from Africa, in the region of Egypt. Aedes aegypti is the mosquito that transmits the largest number of diseases. The vector responsible for transmitting the dengue, zika, and yellow fever viruses, the best known, but also transmits the Venezuelan equine encephalitis virus and the mayaro fever virus. Mosquito preferentially inhabits the regions of warmer climates such as the tropical areas of the globe, but may also be present in temperate regions that in some seasons have higher temperatures. Aedes aegypti a mosquito that quickly adapted to the urbanization process and increasing population density. Mosquito eggs can survive up to one year in dry environments hatching in contact with water.

The development of Aedes aegypti as a subspecies depended on the ecological niche instituted by human groupings. More than five centuries ago, through the African slave trade, it was unintentionally tasked with spreading the mosquito and the viruses that infected it around the world. Since then, dengue fever, yellow fever and chikungunya have caused epidemics on five continents. The name of the disease is of Tanzanian origin, came from the Kimakonde language, meaning “man who is arched” or “bent or twisted”, referring to the joint pain of the disease (POWERS and LOGUE, 2007).

Chikungunya appears to the world from the second half of the twentieth century. However, according to Azevedo, Oliveira and Vasconcelos (2015, p. 2) epidemics by chikungunya have been reported since 1779, but have been erroneously recorded as dengue outbreaks. The first officially recorded case occurred in Tanzania in 1953, despite manifestations of the disease three years earlier. From this context begins the process of sporadic events of the disease in the world. In the 1960s new cases of chikungunya fever are reported in Asia. India, Malaysia, Indonesia, Cambodia, Vietnam, Myanmar, Pakistan and Thailand. In 1999-2000, the chikungunya virus caused an epidemic in Kinshasa, the capital of the Democratic Republic of Congo, after nearly four decades without any isolation of the virus. Between 2001 and 2003, chikungunya reappears in Indonesia after a two-decade absence.

In 2004, the chikungunya virus was apparently confined to African and Asian countries. The following year, the disease was found in the southwest Indian Ocean (Comoros Islands), probably introduced by contaminated travelers from Lamu (Kenya), where an outbreak was reported in June 2004. The virus spread rapidly across the Indian Ocean islands. (Comoros, Madagascar, Mayotte, Seychelles, Mauritius, Reunion Island), leading to an epidemic in 2005 and 2006. Other imported cases were confirmed in travelers returning from endemic regions of Asia and Indian Ocean Islands to Asian countries (Hong Kong , Japan, Singapore, Sri Lanka and Taiwan), Europe (Germany, Belgium, Spain, France, Italy, Norway, Czech Republic, Switzerland and Ukraine), North America (US and Canada), and Oceania (Australia).

> Concerns about the spread and establishment of the virus in the Americas and other countries grew mainly from 2011, when an outbreak of more than 11,000 cases occurred in the Democratic Republic of Congo. Indeed, in 2013 cases spread with autochthonous transmission of the disease in several Caribbean countries (French Guiana, Saint Martin, Martinique, Guadeloupe, Dominican Republic, Saint Bartholomew and British Virgin Islands) and in January 2014 the first cases in countries of the continental area of Central America (AZEVEDO; OLIVEIRA; VASCONCELOS, 2015, p. 3)

The chikungunya virus arrived in the Americas only in 2014 and continued to expand causing numerous epidemics. After this period there are estimates that there are more than 1.7 million suspected cases reported to the Pan American Health Organization. The diagnosis of the disease is not easy, since there are similar viruses that have Aede aegypti as the main vector. Recent outbreaks and epidemics occurred from 2010 to 2015 across the Americas, Europe, Africa, China, Southeast Asia, and the Pacific Islands. High population urban centers with health planning and management problems are the main scenarios for the spread of the virus that is supported by the existence of a large number of vectors. In 2017, the World Health Organization confirmed the outbreak of the disease in the Lazio Region of central Italy, more specifically in the city of Rome and in the Anzio and Latina areas.

“Bending bodies” in Brazil

The first cases of chikungunya in Brazil were imported. In June 2014, six army soldiers on mission in Haiti return to the country carrying chikungunya viruses. The first indigenous case in the country occurs in Amapá three months after notification of contaminated military personnel outside the country. In the same month, in September, an outbreak of chikungunya was recorded in Feira de Santana, BA. According to the Ministry of Health in 2015, until the fifteenth epidemiological week (4/1/2015 to 4/18/2015), 3,135 suspected cases (autochthonous transmission) of chikungunya virus were reported in the states of Amapá and Bahia, of which 1,688 were confirmed, five by laboratory criteria and 1,683 by clinical and epidemiological criteria. Imported cases from Amapá and Bahia, as well as from other countries, were registered in several Brazilian states.

From 2014, 2,772 cases of chikungunya fever were confirmed, distributed in six Federative Units: Amapá (1,554 cases), Bahia (1,214), Federal District (2), Mato Grosso do Sul (1), Roraima (1) and Goiás (1). In 2015, until the 12th epidemiological week (January 4 to March 28, 2015), 1,513 indigenous cases were confirmed: 735 in Amapá, where the Asian genotype was identified and 778 cases in Bahia, where the African genotype (HONORIO) was identified. , et al., 2015, p. 906).

> The scenario in Brazil is likely to cause major epidemics, due to several factors such as: (1) widespread infestation of the Brazilian territory by the two CHIKV vectors; (2) simultaneous DENV and CHIKV circulation, making diagnosis and therapeutic approach difficult; (3) possibility of CHIKV adaptation to Ae. albopictus, as described in other countries; (4) higher proportion of symptomatic cases compared to dengue; (5) longer period of viremia (up to 8 days after onset of fever); (6) susceptibility of the entire human population, favoring the rapid spread of the virus; (7) abundance of primate species, along with culicid species never exposed to CHIKV, offering opportunities for establishment of wild cycles previously present only in Africa; (8) and, finally, the territorial extension of the country, which makes the surveillance and access of most health services to diagnostic laboratory tests difficult (HONÓRIO, et al., 2015, p. 907).

In 2016 49,516 suspected cases were reported and in 2017 20,921 were reported and there was 1 confirmed death in the city of Fortaleza (SESA / CE, 2017). Between December 31, 2017 and July 14, 2018, Brazil had 13 confirmed chikungunya deaths. The data are from an epidemiological bulletin of the Ministry of Health. In 2019 so far Pará, according to state in the number of cases, observed a fall of 18.8% compared to the equivalent week of 2018. There have been 2,729 cases, compared to 3,360. last year. Minas Gerais saw an even greater reduction in chikungunya cases: from 9,625 last year to 1,764 this year, or down 81.7%

Probable cases of chikungunya in Brazil

Estado	2018	2019	Variação %
Rondônia	37	66	78,38%
Acre	56	67	19,64%
Amazonas	27	72	166,67%
Roraima	11	24	118,18%
Pará	3.360	2.729	-18,78%
Amapá	95	56	-41,05%
Tocantins	130	427	228,46%
Maranhão	412	400	-2,91%
Piauí	308	219	-28,90%
Ceará	987	1.716	73,86%
Rio Grande do Norte	674	755	12,02%
Paraíba	403	394	-2,23%
Pernambuco	493	1.612	226,98%
Alagoas	54	269	398,15%
Sergipe	16	29	81,25%
Bahia	1.688	749	-55,63%
Minas Gerais	9.625	1.764	-81,67%
Espírito Santo	210	342	62,86%
Rio de Janeiro	20.086	25.459	26,75%
São Paulo	249	1.619	550,20%
Paraná	89	239	168,54%
Santa Catarina	27	167	518,52%
Rio Grande do Sul	31	31	0,00%
Mato Grosso do Sul	170	173	1,76%
Mato Grosso	12.427	289	-97,67%
Goiás	102	123	20,59%
Distrito Federal	30	134	346,67%
Brasil	**51.797**	**39924**	**-22,92%**

Source: Epidemiological Weeks 1 to 19 - Ministry of Health

In São Paulo, the increase was 550.2%, from 249 to 707 cases. In 2019, until Week 19, 8 deaths were confirmed across the country from chikungunya (1 in Bahia, 6 in Rio de Janeiro and 1 in the Federal District). There are 39 more deaths under investigation, most of them 16 in the state of Pernambuco. Rio has recorded 25,459 cases so far this year 2019. In 2018 there were 20,086 cases not confirmed in the state of Rio. This is a 26.7% increase in the number of cases.

> [...] Government announces action of 220,000 military personnel to fight Aedes aegypti - Military personnel should deliver leaflets and visits to homes and schools. Mosquito is a transmitter of chikungunya virus, related to outbreaks in various regions of the country. [...] "(O Globo Journal, 01/27/2016).
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> The government of Rio de Janeiro confirmed on Monday (29) that the state already recorded two deaths may chikungunya fever in 2019. [...] According to SES-RJ, several measures are being taken to combat mosquito outbreaks Aedes aegypti, vector of the virus that causes chikungunya fever. Among them are actions with drones to identify the breeding [...] (Diário de Pernambuco, 29/04/2019)

Major newspapers in the country use data provided by health secretaries and state government agencies to reinforce the war discourse that has historically been present in other epidemic contexts such as malaria, dengue, zika, and yellow fever. The headlines of the press emphasize a war between men and mosquitoes. In this scenario, a large part of the public authorities responsible for the health agenda in Brazilian municipalities and states support and disclaim their responsibilities. This is how chikungunya enters the list of neglected diseases.

Conclusions

The epidemics produced by the so-called neglected diseases impact the social development of the country. The population is held hostage from time to time by discontinuous policies and lack of planning. The malaria, dengue, zika and chikungunya epidemics that have mosquitoes as their main transmitter are interdependent diseases. That is, the confrontation of each one goes through collective actions and educational programs. The so-called "war" between men and mosquitoes is not a war. It is an alibi. Neglected diseases and their overwhelming epidemics when interpreted by a war speech acquit public authorities of neglect and especially of unpreparedness in tackling public health agendas.

Chikungunya in Brazil was initially treated in the press with discourses very close to other neglected diseases and epidemics as the main example dengue. First, the press discourse was bolstered by the scarcity of scientific sources about the virus, which was alleviated further by political and economic interests in the pre-Olympics context. Next, warlike and alarming discourse about press-produced chikungunya seems to weaken the educational character the epidemic requires to be addressed. The historical knowledge of epidemic treatment and control actions can help in the interpretation of our current context, allowing to understand real social compromises produced by the "bodies that bend".

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Abstract

The aim of this paper is to analyze the history of chikungunya epidemics and outbreaks in Brazil. Outbreaks and epidemics reported by the national press that becomes the main vehicle for disseminating information about the disease. Knowledge about the chikungunya virus is now structured by the media. In this sense, it is essential to evaluate the agreements and disagreements of this translation. Chikungunya is known in Africa as the disease of "those who bend," an allusion to the curved appearance of patients who could not lift their bodies because of characteristic joint pain. In 2014, 824 cases of chikungunya were recorded in Brazil. Chikungunya outbreaks in the southeastern region occur from 2015. It becomes epidemic in northeastern Brazil in mid-2016. With 60,000 confirmed cases of chikungunya in Ceará that had so far the highest rate in the country. Chikungunya in its most acute phase compromises the joints promoting severe pain and sequelae that can last up to six months. It is suspected that chikungunya virus may lead the individual to develop another condition known as Guillain Barré syndrome, autoimmune disease."Bending bodies" for a longer period can produce incapable bodies for good. Historical mapping of chikungunya epidemics and outbreaks may provide some important tools for assessing the current picture of the disease

Key Words: Body; Chikungunya; Epidemics.

Résumé

L'objectif de cet article est d'analyser l'historique des épidémies et éclos de chikungunya au Brésil. Les épidémies et les éclos rapportées par la presse nationale deviennent le principal vecteur de diffusion d'informations sur la maladie. La connaissance du virus du chikungunya est maintenant structurée par les médias. En ce sens, il est essentiel d'évaluer les accords et les désaccords de cette traduction. Le chikungunya est connu en Afrique comme la maladie de "ceux qui se plient", une allusion à l'apparence courbée de patients qui ne pouvaient pas soulever leurs corps à cause de douleurs articulaires caractéristiques. En 2014, 824 cas de chikungunya ont été enregistrés au Brésil. Des épidémies de chikungunya dans la région du sud-est se produisent à partir de 2015. Devient en épidémie dans le nord-est du Brésil à la mi-2016, avec 60 000 cas confirmés de chikungunya au Ceará qui présentaient le taux le plus élevé du pays. Le chikungunya, dans sa phase la plus aiguë, compromet les articulations et provoque des douleurs et des séquelles graves pouvant durer jusqu'à six mois. On soupçonne que le virus du chikungunya peut amener la personne à développer une autre maladie appelée syndrome de Guillain Barré, une maladie auto-immune. «Plier les corps» pendant une période plus longue peut produire des corps incapables pour de bon. La cartographie historique des épidémies et des épidémies de chikungunya peut fournir des outils importants pour évaluer la situation actuelle de la maladie.

Mots Clés: Corps; Chikungunya; Épidémies.

Resumen

El objetivo de este trabajo es analizar la historia de epidemias y brotes de chikungunya en Brasil. Brotes y epidemias reportados por la prensa nacional que se convierte en el principal vehículo para diseminar información sobre la enfermedad. El conocimiento sobre el virus chikungunya ahora está estructurado por los medios. En este sentido, es esencial evaluar los acuerdos y desacuerdos de esta traducción. Chikungunya es conocida en África como la enfermedad de "los que se doblan", una alusión a la apariencia curva de los pacientes que no podían levantar sus cuerpos debido al dolor articular característico. En 2014, se registraron 824 casos de chikungunya en Brasil. Los brotes de chikungunya en la región sureste se producen a partir de 2015. Se convierte en epidemia en el noreste de Brasil a mediados de 2016. Con 60,000 casos confirmados de chikungunya en Ceará que hasta ahora tenían la tasa más alta en el país. La chikungunya en su fase más aguda compromete las articulaciones y promueve dolor intenso y secuelas que pueden durar hasta seis meses. Se sospecha que el virus chikungunya puede llevar al individuo a desarrollar otra afección conocida como síndrome de Guillain Barré, la enfermedad autoinmune. Los "cuerpos doblados" por un período más largo pueden producir cuerpos incapaces para siempre. El mapeo histórico de epidemias y brotes de chikungunya puede proporcionar algunas herramientas importantes para evaluar la imagen actual de la enfermedad.

Contraseñas: Cuerpos; Chikungunya; Epidemias.

Resumo

O objetivo do artigo é analisar a história das epidemias e dos surtos de chikungunya no Brasil. Surtos e epidemias noticiados pela imprensa nacional que se torna o principal veículo de divulgação de informações sobre doença. O conhecimento sobre o vírus da chikungunya passou ser estruturado pelos meios de comunicação. Neste sentido, é fundamental avaliar os acordos e desacordos dessa tradução. A chikungunya é conhecida na África como como a doença “daqueles que se dobram”, uma alusão à aparência curvada dos pacientes, que não conseguiam erguer seus corpos em virtude das dores articulares características. No ano de 2014 foram registrados 824 casos de chikungunya no Brasil. Surtos da chikungunya na região sudeste ocorrem a partir de 2015. Se torna epidêmica no nordeste brasileiro em meados de 2016. Com 60.000 casos confirmados de chikungunya no Ceará que teve até então o maior índice do país. A chikungunya em sua fase mais aguda compromete as articulações promovendo fortes dores e sequelas que podem durar até seis meses. Há suspeitas que vírus da chikungunya pode levar o indivíduo a desenvolver uma outra patologia conhecida como síndrome de Guillain Barré, doença autoimune. “Corpos que se dobram” por um período maior, podem produzir corpos incapazes definitivamente. O mapeamento histórico das epidemias e surtos da chikungunya pode fornecer alguns instrumentos importantes na avaliação do quadro atual da doença.

Palavras Chaves: Corpos; Chikungunya; Epidemias.