THE EARLY USE OF BREAK-BONE FEVER (QUEBRANTA HUESOS, 1771) AND DENGUE (1801) IN SPANISH

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Abstract. The appellation of break-bone fever for dengue is attributed to the popular name given to the disease in the first described epidemic of an illness that is clinically compatible with dengue in Philadelphia in 1780. The origin of the word dengue as the name of an illness is currently attributed to the Swahili phrase Ka danga pepo, thought to have crossed from Africa to the Caribbean in 1827; in Cuba this phrase was popularly identified with the Spanish word dengue. This article presents documents from Spanish archives that indicate the use of quebranta huesos (break-bone) by a physician in Puerto Rico to describe a febrile illness in 1771, and the use of the term dengue by the Queen of Spain in 1801 to describe an acute febrile illness with bone and joint pains, hemorrhage, and jaundice. These texts are evidence of a more generalized use of the term break-bone than previously recognized, and conversely, the specifically Spanish origin of dengue as the name for an illness.

The first described epidemic of an illness that is clinically compatible with dengue occurred in Philadelphia in 1780.1 In his account of that outbreak of “bilious remitting fever,” Benjamin Rush indicated that “its more general name among all classes of people was the break-bone fever.”2 The origin of dengue as the name of an illness has been attributed to sources as diverse as the disease is geographically dispersed. According to the Oxford English Dictionary, the term originated in the Swahili phrase Ka danga pepo (a kind of sudden cramp-like seizure from an evil spirit or plague).3 The Oxford English Dictionary quotes Dr. James Christie (1872, 1881), who proposed that the phrase and the disease crossed from East Africa to the Caribbean in 1827. In Cuba this phrase was then popularly identified with the Spanish word dengue, and in the British West Indies with dandy.4 Both terms indicate mannerisms or fastidiousness and were applied in apparent reference to the painful stiff gait and dread of motion of the patients.4,5

This article presents documents from Spanish archives that indicate the use of quebranta huesos (break-bone) for a febrile illness in 1771, and the use of dengue in Spain in 1801 to describe an acute febrile illness with bone and joint pains, hemorrhage, and jaundice. These texts are evidence of a more generalized use of break-bone than previously recognized, and conversely, the specifically Spanish origin of dengue as the name for an illness.

BREAK-BONE

In 1771, the physician of the military hospital in San Juan, Puerto Rico was asked to give a formal opinion on the need for a daily ration of rum (one-tenth of a “regular bottle”) for the prisoners engaged in the construction of the city’s forts. José Sabater had practiced there since 1763, with official posts as surgeon of the León Regiment, and of the local militia. He recommended rum (in small quantities) as most useful for the prevention of “scurvy, fevers, ardent, malignant putrid, spasms, break bone, or palsied constipations, etc. . . .”6 The inclusion of break-bone in a series of fevers suggests that the term was part of the international taxonomy of febrile illnesses of his time. Sabater was a learned military physician, and his academic inclinations were recognized shortly thereafter (1772) with the title of Honorary Teacher at the Royal College of Surgeons of Barcelona.7

DENGUE

At Aranjuez, Spain, on June 12, 1801, the Queen wrote to Manuel Godoy (principal minister, friend, and alleged lover) stating that she had dengue. Goya’s group portrait of the royal family (now at the Prado Museum) was finished at about this time; the Queen was 49 years old.8 Godoy was then at the head of the Spanish Army invading Portugal, and Goya’s portrait shows him during a pause in the campaign, reading a letter (the painting is at the Real Academia de Bellas Artes de San Fernando, Madrid). Queen Luisa wrote to Godoy almost daily, and we can reconstruct her illness through the correspondence. The royal family was in good health at the end of May, but the Queen commented repeatedly on the foul, rainy weather in Aranjuez (letters of May 21, 28, and 30). She also reported that Madrid had such a bad epidemic of colds (“resfriados”) that in some convents mass could not be said because all the friars were ill, and tertian fevers were frequent, just as in Aranjuez (letter of May 30). Two days later, she complained of a cold and a sore throat, but by June 3 everyone was well. The letters of June 9, 10, 12, and 13 then gave a detailed description of her symptoms.

June 9. “I’m not well at all, with a continual bitterness in my mouth, to the point that it distorts my whole visage, making me yellow as saffron, with pain at the pit of my stomach; the hips and womb hurt and make me very uncomfortable; the sadness is strong, with a general heaviness and weakness, my legs are swelling, they tell me I need to exercise on foot and on horseback. I don’t know yet what is my ailment. It worries me because I have what I’ve never felt before, and if this doesn’t stop, I believe this bothersome woman will last only a short time, and you will all be rid of her. In my handwriting you’ll recognize my unsteady hand; God’s will be done.”

June 10. “I am less ill than yesterday, but I think I have the cold in fashion, because my body is very painful and especially (?) the head.”

June 12. “I’m feeling better, because it has been the cold in fashion, that they call dengue, and since yesterday I’ve
had some blood, which is what is making me uncomfortable, and after talking some time the throat hurts."

June 13. “Friend Manuel, I’m very sorry to have worried you but in truth the day I wrote to you I felt very ill, but it was that epidemic that we’re having, so general that few escape it. I got away without fever, but in others it causes quite good ones. But it puts one in, and then leaves, a weakness as from a disease, but I’m now well, and only my throat itches, besides having my period rather well, after some months without this relief, so that I’m back in my old self(?) and with appetite.”

DISCUSSION

The conceptualization of microscopic pathology two centuries ago was fundamentally different from the ideas that now guide us. The basic unit of organisms was not the cell, but the fiber. Contraction, relaxation, or irritation of fibers produced different symptoms and illnesses. For example, when Sabater mentioned “palpitated constipations,” he was referring to conditions in which the closing of the pores prevented the evacuation of sweat, and an accompanying relaxation of the nerves resulted in their loss of movement and sensation. Medicine in the eighteenth century, as in our time, defined diseases with the observational and analytic methods at its disposal. Until recently, we used the descriptive title of peptic ulcer disease for what is now recognized as Helicobacter pylori infection. In the eighteenth century, fevers were not considered a symptom, but a disease. Intermittent fever, tertian fever, and remitting fever were diseases that could be identified by the changes in temperature and pulse throughout the illness. Nevertheless, the characteristics of a fever could change, and therefore one disease could evolve or “degenerate” into another.

Dengue is defined as an infectious eruptive febrile illness, commencing suddenly, and characterized by excruciating pains, especially in the joints, with great prostration and debility, but seldom proving fatal. The disease produces hemorrhagic manifestations in about 20% of the cases, and mild elevations in liver enzyme levels in most cases, but jaundice is rare. Dengue is caused by a virus transmitted by Aedes mosquitoes, most commonly Ae. aegypti.

A detailed analysis of the personal, medical, and political context of Queen Luisa’s letters is beyond the scope of this short article, but some comment is necessary. The missives often included medical news, as could be expected from a mother in a large family with many children and old people. The royal family used popular, unsophisticated language, so it is not surprising that she incorporated the term dengue in her vocabulary. She frequently mentioned some sort of hemorrhage or another in her letters, so when she says “I’ve had some blood,” one must not necessarily attribute it to what she calls dengue. By the same token, when she “got away without fever,” she may be referring to a more severe state than a mere elevation in body temperature because at that time fever (internationally, not just “calentura” in Spanish) meant “a disordered movement of the pulse, proceeding from some inward cause that alters it and produces heat or kindling” (“encendimiento”). Queen Luisa’s symptoms may have been caused by dengue fever, but also by any of several other diseases. Aedes aegypti mosquitoes were abundant in parts of Spain then suffering from yellow fever epidemics, and could have been present in Aranjuez, where the royal family was in residence. Her recovery coincides with the news of the peace accords in Portugal (June 10). Undoubtedly, the worries of war increased her dejection during and after the illness, and the joy of victory accelerated her sense of well-being.

Orozco in 1977 postulated that it was in Spain that dengue was first bestowed as a name on an illness, based on the meaning of the word, and the analogy with other nicknames that were used for contemporary febrile illnesses that were mild in comparison to yellow fever. The Spanish dictionaries of the period do not give dengue a medical meaning, and there are no Spanish medical dictionaries from that time. The current thinking on the origin of dengue is exemplified by the previously quoted description in the Oxford English Dictionary, also endorsed in the Cambridge World History of Human Disease. Undoubtedly, the 1828 Caribbean pandemic, occurring in a multilingual, multiracial community, helped internationalize the use of dengue as the term for the disease. It is impossible to confirm if Queen Luisa’s sickness was caused by the dengue virus, but for the purpose of this article, such confirmation is irrelevant. Regardless of the cause of her symptoms, it is clear that the term dengue was used in Spanish in 1801 to refer to an acute febrile illness similar to the syndrome we now identify, by laboratory analyses, as being due to infection with the dengue virus.

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REFERENCES

7. Girar R. Petition by Rita Girar, widow of Don José Sabater, 17
November 1788. Archivo General de Indias, Seville, Spain. Seccion Santo Domingo, Legajo 2504. Sabater died on 7 November 1788, and the widow’s request for economic assistance includes third-party testimonials to his skills and his provision of free care and even food to the poor.


9. María Luisa de Parma, Queen of Spain. Letters to Manuel Godoy, 1801. Archivo del Palacio Real, Madrid, Spain. Sección Histórica, Papeles Reservados de Fernando VII. Volume 94. For June 12, my translation of: “Yo estoy mejor, pues ha sido el resfriado de moda, que llaman dengue, y desde ayer tengo algo de sangre, que es lo que me trae así incomodada, y en explicándome largo la garganta me duele.”


