



RESEARCH ARTICLE

# The “Controversial Cundurango Cure”: Medical professionalization and the global circulation of drugs

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## Argument

This article examines the medical and political discussions regarding a controversial medicinal bark from Ecuador – cundurango – that was actively sponsored by the Ecuadorian government as a new botanical cure for cancer in the late nineteenth century United States and elsewhere. The article focuses on the commercial and diplomatic interests behind the public discussion and advertising techniques of this drug. It argues that diverse elements – including the struggle for positioning scientific societies and the disapproval of the capacities of Ecuadorian doctors, US abolitionist history, regional and local political struggles – played a role in the quackery accusations against cundurango and its promoters. The development and international trade of this remedy offer interesting insights into the global history of drugs, particularly how medical knowledge was challenged during a period when scientific medicine was struggling for hegemony. It explores how newspapers expanded “the public interest” in a possible cancer cure.

**Keywords:** Cundurango; drug advertising; international drug trade; US Civil War; cancer therapy; Ecuador; quackery; charlatan; history of medicine; circulation of knowledge; African American medicine; medical professionalization

## Introduction

Cure or no cure for cancer, cundurango has created so much excitement among physicians that it has engendered utter animosity among the best doctors in this city, and threatens to divide and dissolve the medical societies of the district . . . Those who have experimented with this vegetable affirm in the most positive way that it possesses the virtues attributed to it in Ecuador, while other practitioners declare it a humbug and threaten to take preventions so that all doctors who use it may be expelled from medical societies as charlatans.

*New York Sunday News* of July 9, 1871, cited in Flores Jijon [1871](#).

In the mid-1860s, in the region of Loja in the South of Ecuador, a plant called cundurango with alleged medicinal properties against cancer was identified. Through the active promotion of the Ecuadorian Government, the medical effectiveness and botanical identity of this vine were brought to discussion within the global networks of medicine and science. Experts in Ecuador, Europe and the United States were requested to analyze the botanical and chemical characteristics of the plant and to experiment with cancer patients.

In the United States, cundurango was put to trial through the active participation of the State Department, the Army and Navy hospitals, and District of Columbia and New York state hospitals. The Department of Agriculture, the Smithsonian Institute and the Bureau of Medicine and Surgery of the US Navy collaborated in the chemical and botanical analysis of this vine. At the same time, the minister of Ecuador in Washington, Antonio Flores Jijon (1833-1915) gave his

private doctor, Dr. Doctor Willard Bliss (1825-1888), some samples of the bark to try on his own cancer patients, including the mother of the Vice-president of the United States. In the context of Reconstruction after the American Civil War (1861-1865), Dr. Bliss was a controversial physician that was part of the very small fraction of the Medical Society of the District of Columbia (MSDC) that supported the inclusion of doctors of African descent.

In the year 1871, newspapers all over the world, as well as specialized medical journals were talking about *cundurango* as a possible specific remedy against cancer. It became a sensation in the United States newspapers all through 1872. The *Medical Record* of New York said: “*Cundurango*, the so-called South American specific for cancer, is still a popular sensation . . . . There is, however, a little too much of the newspaper element in its notoriety to satisfy the minds of scientific men” (Anon. 1871a). In the United States, this vine from Southern Ecuador was sold as a nostrum and attacked as quackery. As we will see in the present article, on the one hand, the case of *cundurango* has all the classical elements of the accusations of nostrum and charlatan, i.e. exotic and indigenous origin, pompous newspaper advertising, and a questioning of the ethics of a professional doctor as a remedy promoter and businessman (Porter 2003). On the other hand, it is not a typical case of quackery, since *cundurango* was publicized both by the governments of Ecuador and the United States of America. At the same time, Dr. Bliss was not an outsider of regular medicine since he was a very prominent doctor and part of the Medical Society of the District of Columbia (MSDC), as well as professor of Georgetown University. One important element in this conundrum is the discussion on equal rights for African Americans for the incorporation into the medical community in which Dr. Bliss played an important part.

We will review official correspondence of the Ecuadorian legation in Washington as well as that of the Ministry of the Interior of Ecuador to understand the internationalization of the research on *cundurango*, and in a second section we will explore US newspapers and documents of the MSDC to discuss how this case brings new insights into the contested professionalization of medicine in the United States in the late nineteenth century. We will explore how the Reconstruction debate over the incorporation of African Americans to medical institutions played an important role in this story, by looking at how the MSDC used its usual discourse against its enemies: quackery accusations and disciplinary actions.

In the case of the United States, the professionalization of medicine took place hand in hand with the heavily political discussions about the place of African Americans in society (Shortt 1983). The existence of two national medical associations in this country, the American Medical Association (AMA) and the National Medical Association (NMA), has to do with the history of racial segregation within this profession. In fact, the NMA was founded as a reaction to these policies within the AMA, and had predominantly black membership until the 1970s. 1871, the year when *cundurango* made headlines in U.S. newspapers, was the same year as the debate over the inclusion of black physicians rose to its highest degree of tension within the AMA, as we shall see. The occurrence of these seemingly unrelated events at the same historical moment, suggests that the professional struggle against “irregulars” and “sectarians” was also influenced by a racist agenda. This separation lasted until the 1960s Civil Rights era (Byrd and Clayton 2000; Baker et al. 2008).

## 1. The search for scientific validation and an international market for *cundurango*

In 1871, several doctors in different cities of Ecuador had positive results on cancer patients, after experimenting with a new medicinal plant called *cundurango*. The government of President Gabriel Garcia Moreno decided to send, through the consular service, samples of this plant to Washington, London, and Paris, amongst other capitals, hoping to establish the botanical identity

of this plant and validate its effectiveness in treating cancer. The Ecuadorian government was also seeking the opportunity to open international markets for this drug. The history of the cinchona<sup>1</sup> seemed to repeat itself: the Ecuadorian Southern region of Loja promised to give the world a cure against a major disease and, at the same time, important revenues for Ecuador. As clearly stated by the Ecuadorian Ambassador in Washington in the letter enclosed in the cundurango parcel, this potential drug demanded the attention “not only of humanity and science, but the mercantile interests of Ecuador and the United States of America” (Fish 1872, 264).

Garcia Moreno’s project of building a centralized and strong state in the Andes after the 1859 traumatic civil war was based in the idea of what scholars have called a “catholic modernity” that combined a strong investment on scientific education and public works with moral discipline (Maignashca 1994, 2005; Williams 2007; Kingman and Goetschel 2014, Sevilla and Sevilla 2015). This President reformed higher education in the Natural Sciences in 1870, as well as in Medicine in 1873 (Estrella 2013; Miranda 1972; Cuvi et al. 2015). Engineers and scientists were brought from Europe, while local students began their scientific training in the newly established Quito Polytechnic School, especially to train engineers for the building of much needed roads and bridges that would connect the large cities in the valleys high in the Andes with the commercial port of Guayaquil (Villalba 1872). In 1860, the only road linking the more populated highlands with the coast had undergone no manner of repair. The main road on the lowlands was “nearly concealed by a rank of tropical vegetation, or obstructed by fallen trees undergoing different stages of decay” (Jameson 1860, 186). Because of these dreadful circumstances, for one-half of the year, due to the heavy rains, there was an almost total absence of communications and commerce between Guayaquil and the interior (Jameson 1860, 186).

A decade later, and in the context of the various efforts of the Ecuadorian government to develop the trading business of cundurango, many projects were aimed at improving the conditions of local roads. The challenge was even greater with the cundurango because roads had to be conditioned from the very remote province of Loja to transport the bark to the port of Guayaquil for export. In January 1871, Mr. Edward Rumsey Wing (1871a, 255), US Ambassador in Quito, stated in his first letter on cundurango to the US State Department that:

The condition of the inland roads and the difficulty of transportation to the coast will interfere with its exportation in large quantities, but the energy of President Morena [sic] will eventually open it up to the commerce of the world and the relief of the afflicted.

A few months later, after seeing the enthusiasm regarding cundurango in the North American public, Ecuador put all its hopes on the commerce of this miraculous drug. In his address to Congress in August 1871, President Garcia Moreno spoke of the progress of road building and their importance for making cundurango available for all humanity and science:

It is sensible that, because of the lack of available engineers, the road from Santa Rosa to Zaruma is no longer studied. This road is even more necessary today because of the discovery of Cundurango, a vegetable which has given and continues to give astonishing results for its powerful restorative properties in the cure of diseases that surpass the resources of science. Nevertheless, I trust that the road will begin to be explored this year, and that, when the exploration is completed with a good result, a project so necessary for the prosperity of the province of Loja will begin. (Garcia Moreno 1871, 9)<sup>2</sup>

<sup>1</sup>Cinchona is a genus of trees from which quinine is extracted. Since the seventeenth century, this Andean tree was used all over the world to treat malaria. For the importance of quina, cinchona, cascarilla, or quinquina in the colonial history of medicine and Quito’s economy, see Crawford (2016) and Boumediene (2016); for the Ecuadorian Republic in the nineteenth century, see Palomeque (1990), and in the twentieth century see Cuvi (2011).

<sup>2</sup>Translated from Spanish by the author.

At the beginning of February 1871, Mr. Wing received a communication of Garcia Moreno that he would send in the next month “one boalter of the cundurango for experiment and distribution” to the State Department in Washington. The US Ambassador in Quito shared with the Secretary of State “the simple recipe, setting forth the manner in which the article is yet to be used” (Wing 1871a). The recipe was made by Dr. Casares in Quito a year before and translated by E. R. Wing and consisted on oral administration of a decoction of cundurango bark.

As announced, in March 1871, the government of Ecuador through its Legation in Washington sent a box with cundurango as a gift to the State Department of the United States. In doing so, the Ecuadorian government expected to receive a report with chemical analyses and the results of therapeutic experimentation (Flores Jijon 1871; Fish 1872, 264). The Secretary of State, Mr. Fish, sent some of the cundurango samples to the Navy and to the Secretary of War for this purpose, as well as to the Department of Agriculture for chemical analysis. Later, in late April 1871, Mr. Fish remitted the drug to the New York and Washington State Hospitals, including a pamphlet with the report by Drs. Casares, Eguiguren and Chiriboga from Quito and Guayaquil, and the preliminary chemical analysis of Nicolas Fuentes from Guayaquil. However, the correspondence indicates that it was insufficient to have definite results (Flores Jijon 1871) and more cundurango was requested. In some of the clinical trials, there was relief in the symptoms but all of the patients treated eventually died. For example, the Superintendent of the Massachusetts General Hospital, said in a letter to the Secretary of State: “we have tried the article in six cases, and find that we can make no report of its effects on account of the limited amount at our disposal,” and asked for a supply “as large as possible,” since they found that “the cases under treatment warrant further trial” (Fish 1872). In a second letter, Shaw insisted that “the officers of the institution respectfully report that they are as yet unprepared to express an opinion, for the reason that the supply of the article was small, and the time for experimentation short” (ibid., 12).

The New York Hospital Committee in charge of experimenting with cundurango didn’t have conclusive results as reported in July 1871. Nonetheless, they requested more of the drug because there was a general concern amongst physicians with the publicity given to this drug before it had been thoroughly tested. In this context, the New York Hospital doctors argued that this further experimentation was more relevant “especially if such trials could be persecuted without enlisting popular sympathy, which has been already prematurely evoked, and that without at all promoting the attainment of truth” (ibid., 14).

The reports on the medical effectiveness of cundurango came to light first by the daily press in July 1871, by a letter from Dr. Alex Y. P. Garnett<sup>3</sup> (1819-1888) that was published in the *Washington Patriot*, and then reproduced in several newspapers like the *Alexandria Gazette* or *The New York Herald*. Even Antonio Flores Jijon, the Minister of Ecuador in Washington, first knew of some of these results by the daily press rather than from the State Department. Contrary to this, the chemical analyses were sent to the Ecuadorian Legation already in May 1871, before the results came out in the press (Flores Jijon 1871). Some of the official reports by the Navy Department were printed only in 1873 after the whole cundurango sensation had passed, putting an additional difficulty to the resolution of this enigmatic case (Ruschenberger 1873). As we shall explore later in this article, the daily press played a key role in the cundurango fever of the early 1870s.

The US Army Surgeon gave Dr. Garnett his report of the experiments performed with cundurango in cancer therapy. This Virginian physician had also access to the extensive report of the accomplished pharmacist Dr. Squibb of Brooklyn through the chief of the Bureau of

<sup>3</sup>Alexander Y. P. Garnett was born in a plantation in Virginia and served in the Navy until 1848 and then established his practice in Washington. During the Civil War he was physician of Jefferson Davis, President of the Southern Confederacy, to General R. E. Lee and his family and “to most of the families of the Cabinet Officers of the Confederate Government”. After the end of the Civil War he returned to his practice in Washington (Lamb 1909, 244).

Medicine and Surgery of the United States Navy, in which “he very clearly exhibits his entire want of confidence in its merits as a cure for cancer, and classifies it with the numerous empirical agents which have from time to time heretofore agitated the public mind and disappointed the hopes and expectations of so many unfortunate victims of this terrible malady” (Garnett 1871b).

The Minister of Ecuador in Washington, Antonio Flores Jijon, learnt of these results by reading the newspaper *The World* of New York, July 5, 1871. An article stated that the US Navy Surgeon “is very disapproving of Cundurango” because all his patients treated with this vegetable had died. In the same newspaper, Dr. Squibb discredited the Ecuadorian doctors saying that his own results on cundurango “shows the imposture of the certificates of Quito sent to the Department of State (that of Doctors Casares and Eguiguren)” (Flores Jijon 1871).

What these examples show is that the attempt of the Ecuadorian Government to validate scientifically the alleged medicinal properties of cundurango within the United States medical community had poor results. One of the reasons for this was the difficulty to provide enough cundurango for experimentation due to the very precarious road conditions in Southern Ecuador. Another reason, which we will develop further, is the premature publicity of the drug that raised public expectations, associating cundurango with the ways of quackery.

How did cundurango get to be such prominent news in the US daily press? Why was this exotic drug widely publicized before having solid scientific validation? The crucial aspect of the history of the reception of cundurango in the United States was the accelerated enthusiasm of the key promoters of the drug: the US Ambassador in Quito Mr. Wing, the Ecuadorian Minister in Washington Mr. Flores Jijon, the Head of the State Department, Mr. Fish and the physician of the political elite in Washington, Dr. Bliss.

The newspaper *The Sun* published an article under the name “The State Department is a Quack Medical Concern” where it denounced the actions of the State Department concerning cundurango as “indecent and scandalous.” This article referred to a statement published by Dr. Garnett saying that the idea of speculating with cundurango “originated within certain persons of the State Department who, in collusion with some physicians, gave it a wholesale puff through a State Department circular letter” (Anon. 1871b). *The Sun* and Dr. Garnett (1871a) accused the State Department of making free advertisement for this drug, and of making arrangements for importing cundurango “to be sold by the Cundurango Ring only.” In this accusation it is said that an agent was sent by the State Department to purchase cundurango.<sup>4</sup>

The *New York Medical Record* also entered the dispute when its editorial note argued that the State Department published the correspondence between the Secretary of State and the legation of the United States in Ecuador, as well as that with Antonio Flores Jijon, with the clear intention of promoting this nostrum, even before having convincing positive results from the clinical trials and chemical analyses. In a note printed on the issue on the 15th of September, the *New York Medical Record* said that the agitation of the State Department in relation to cundurango was “a puff preliminary to private speculation in the mysterious virtues of that plant” (Anon. 1871c).

The accusations made against the State Department focused on the fact that after having publicized cundurango with the publication of the official correspondence with the Ecuadorian government, they did not make public the negative reports of the Army and Navy surgeons, nor did they circulate the chemical analyses made by the Department of Agriculture. All these adverse reports were denounced as somehow being hidden from medical men that wanted to consult them (Anon. 1871c).

We can find the justification for such anticipated publicity in the correspondence from the Secretary of the Legation of the U.S. in Quito to the Secretary of State. It is argued that there were too many individual enquiries about the subject so it was best to publish a circular with information on cundurango from the official correspondence. In his letter of the 26<sup>th</sup> of August 1871,

<sup>4</sup>This could refer to the sponsorship that Dr. P. T. Keene, associate of Dr. Willard Bliss, obtained by the State Department and the Ecuadorian government (Flores Jijon 1871). The participation of these physicians will be treated in detail later in the present article.

Mr. Wing (1871c) declared: “I have been literally overwhelmed with letters on the subject from all parts of America and several of the countries of Europe, containing all sorts of inquiries, requests, suggestions, propositions, and demands” and confessed that his knowledge of medicine was insufficient to answer these questions, “all the intricate interrogatives upon the subject of pharmacy, surgery, botany, chemistry, materia medica, therapeutics, etc, etc, that have been propounded to me.” Already in his first letter relating to the cundurango in January 1871, Mr. Wing (1871a) encouraged the State Department to publicize this matter. He ended his letter with the following sentence: “if the Department sees fit to make this matter immediately public, it will afford me genuine pleasure to aid both experimental science and suffering humanity.” In relation to the downside of making this project public too early, Wing said: “I believe that it is always best to risk the chance of failure, rather than to neglect to test an experiment which may result in infinite good.” He highlighted in his correspondence his privileged location and access to the people with the relevant information. The American consul at Guayaquil was also engaged in investigating about cundurango for the State Department (Wing, 1871b).

By June 1871, so many requests for the drug and consultations about the directions for administering it were made to the Minister of Ecuador in Washington as well as to the State Department, that the latter responded to the multiple requests with the following template text:

Sir, in compliance with your wishes, I enclose a copy of the correspondence which has passed between the Department of State, the Minister of Ecuador accredited to the United States and the Minister of the United States at Quito, relative to the discovery of the vegetable called cundurango. The limited supply of the vegetable with which this Department was furnished has been exhausted. (Flores Jijon 1871)

Information from this circular that included the correspondence between Quito and Washington and the report by the Ecuadorian doctors and chemist was printed that same month in the newspapers under the heading “The new cancer remedy” (Anon. 1871d; 1871e). Regular doctors encouraged the State Department to make the reports on the cundurango trials public through medical journals. In this regard, the editors of the *National Medical Journal* published the official correspondence on cundurango with the courtesy of the State Department in May 1871, and in July they sent a letter asking to publish the “reports made to the State Department on the treatment of cancer by cundurango in this country.” They stressed that the reports of cases, “however negative may have been their results, will be regarded with great interest by the medical profession” (Fish 1872).

One of the key problems here was a competition between the daily press and these medical journals on their medical authority. The editors of the *National Medical Journal* said that even if the daily press had already given “publicity” to these results, they cannot “give a detailed report” as the *Journal* can (Fish 1872, 14). The *New York Medical Record* published an article asking the doctors that tried the cundurango to send their reports for duplicates. This medical journal argued that the discussion belonged legitimately to the medical profession; and “save in a purely official way, the Honorable Secretary has no more to do with the matter than has Mr. Colfax<sup>5</sup> to become an authority on pathology” (Anon. 1871c). Ironically, this is the same argument put forward by Mr. Wing regarding his reasons to publicize the information on cundurango put forward by the Ecuadorian experts.

Antonio Flores Jijon saw the advertisement of cundurango as a positive way to increase the commerce of that new product in the United States, even though he was aware that the bad publicity was also affecting its sales. In his letter to the Ecuadorian Minister of Foreign Affairs of October 1871, he collated four advertisements of cundurango bitters from two different sellers

<sup>5</sup>Schuyler Colfax (1823 – 1885), Vice-president of the United States at the time. He will become part of the intricate story of cundurango, as described later.

taken from the *New York Herald*, to show that “the opposition of the majority of physicians to cundurango, and a few violent attacks from the daily press, have not been able to forbid the use of cundurango.” He concluded his letter in an optimistic tone assuring the Minister that with the joint efforts made by the Ecuadorian government and the Ecuadorian Legation in Washington, “a new product for export and wealth production has been created for Ecuador, who will maybe become more well-known in the United States by the “Garciana” than by any other of the numerous productions of its fertile soil” (Flores Jijon 1871). According to Flores Jijon, Bliss and Keene sold it under the name *Aequatoris garciana*, “with which they adorn the jars of their popular remedy,” showing their gratefulness to the President of Ecuador, even though this wasn’t a validated scientific name (Ibid.).

Countless speculations and falsifications were the result of an increasing demand for a product that still was poorly exploited and yet unknown to Botany. The botanical identity of cundurango was discussed in global scientific networks, from Guayaquil to London, Washington, and Paris. Finally, it was the German botanist Heinrich Gustav Reichenbach (1823–1889) in Hamburg who established it as *Marsdenia cundurango* in 1872 (Sevilla & Sevilla 2013). As denounced by two doctors from Guayaquil, Alcides Destrüge (1872) and Honorato Chiriboga (1871), a similar vine with the common name “Bejuco pachón” was being sold by the end of 1871 as cundurango. This plant grew on the outskirts of that Ecuadorian port and thus was easier to obtain than the real cundurango from Loja.

Similarly, Minister Flores Jijon reported a letter from a Dr. Baker (June 28, 1871, *New York Evening Express*) who promised having received his cundurango patent from the US State Department and expressed the intention of circulating the drug freely to hospitals and the poor. The advertisement included a reference to the product being the only true one. The Minister of Ecuador in Washington was suspicious of this publication since he knew that the amount of collected cundurango was very small; not even enough for the treatment of the US Vice President’s mother. He considered that a mechanism of falsification control had to be implemented both by the US Congress and the Ecuadorian State (Flores Jijon 1871).

The United States was also keen on studying the botany of cundurango. Commissioner Capron of the Department of Agriculture was very interested in cundurango and asked the government of Ecuador for seeds of this plant.<sup>6</sup> He sent eight volumes of the “Memoirs” (Annual Reports 1862–1869) of the Department of Agriculture and seeds of other plants in exchange for those of the cundurango (Flores Jijon 1871).

The same efforts were being made in Ecuador to identify the plant and to gather seeds to cultivate it. Flores Jijon congratulated his government for “the important resolution to propagate the cultivation of Cundurango in Loja” and thanked the “repeated offers” made by the Supreme Government to send more bark to the US to supply local demand (Flores Jijon 1871). That same day, in his communication 306, Antonio Flores Jijon said that he was grateful that Loja had sent seeds and bark to the US, and that the government was concerned about the problem of cundurango’s forgery “which is not only a crime against humanity, but a serious action against the agricultural and commercial interests of Ecuador” (Flores Jijon 1871).

In the summer 1871, The Ecuadorian government and the Department of State of the United States sponsored Dr. Keene for an expedition to procure a bigger amount for sale in North America. Again, the road system and other problems linked to the exotic nature of cundurango made it very difficult, as printed in the US newspapers:

<sup>6</sup>Asa Gray reported in 1883 that the seeds sent to the Harvard Botanical Garden by the Washington Department of Agriculture blossomed for the second time. Gray says it looks like the species described by Triana *Gonolobus cundurango* or *Marsdenia reichenbachii*, however concluded that “I have not the means of knowing whether it is a described species or not” (Gray 1883).

the task of obtaining the cundurago [sic] is more difficult than was expected. The roads to the Loja district are rough and unfrequented, the rainy season is not yet over, the streams are swollen, and dangerous to cross, and the Indians are disposed to throw every obstacle in the way of foreigners, of whom they are deeply jealous and suspicious . . . . On arriving in the Loja district he will hire a force of Indians to gather the plant and bring it down from the mountains, where it grows at points so high as to be inaccessible to beasts of burden. It will then be packed on mules, and transported to the Coast. Dr. Keene found that orders for cundurango had been received at Guayaquil from persons in England, France, Italy and other countries to the Governments the Government of Ecuador had furnished samples. Anon. 1871g)

It is clear that the objective of the Ecuadorian government of scientifically validating the medicinal properties of cundurango was not met in the years 1871-1872, mainly because at the beginning there wasn't enough cundurango to make reliable testing. The small amount of cundurango available for experimentation was a consequence of the difficulties to transport its bark from the Loja region to the port of Guayaquil. This, together with the lack of a clear botanical identity for this vine until the second half of the year 1872 (Sevilla & Sevilla 2013), created much confusion and forgery. On the other hand, most of the enthusiastic promoters were not medical men but members of the Ecuadorian and American Foreign Offices, thus very much interested in increasing the international commerce of this drug. We believe that this is one of the reasons why they took the risk to publicize cundurango as a cure-all, especially as a cure for cancer, even before there was absolute proof of its medical efficacy. There was a large demand for the drug made by the publicity of its alleged properties even before there was reliable commercial offer of cundurango.

One of the most prominent persons in publicizing the incredible properties of cundurango as a cancer specific at a premature state was indeed part of the medical profession. In the following section, we will explore the role of Dr. Bliss in the controversial reception of cundurango by the medical community in the United States. The part played by Bliss was a key factor as well as in the discussion about quackery related to this exotic drug.

## 2. Cundurango, newspapers, and the professionalization of medicine in the United States during Reconstruction (1865-1877)

The story of cundurango is far more complex than it appears at first glance. Local political struggles are involved in the discussion of this new drug, as well as international commercial interests. The language and advertising techniques associated with quackery were used in the promotion of cundurango, thus influencing the type of reception, especially in its sensational aspect as a wonder drug. Marvelously publicized miraculous results hastened the medical community to come to a definite conclusion regarding the alleged properties of cundurango. This case illustrates how "savoir charlatan" plays an important role in the international circulation of knowledge by expanding the public interest in such new drugs. However, this high publicity becomes a door for forgery and distrust. We will follow the discussion in the press to promote, discredit, and defend cundurango as well as official papers of the American and Ecuadorian States. In fact, in the midst of the controversial "cundurango cure" there is a discussion regarding the ways in which knowledge circulates between South and North America, as well as Europe.

Dr. Doctor Willard Bliss (1825-1888) was the first doctor to administer cundurango in the United States by treating Vice President Schuyler Colfax's mother, who was dying of breast cancer. Bliss was a recognized civil war-surgeon and an active member of the Medical Society of the District of Columbia (MSDC). He had a history of both laudatory comments as surgeon of the 3rd Michigan Infantry and as director of the Armory Square Hospital, as well as harsh



accusations of accepting bribery and of concealing the truth in protecting his reputation (Soper 2017). He was very close to the political elite; he was brought to Washington by Abraham Lincoln to help organize the system of general hospitals in 1862, and was the family doctor of several senators, presidents, vice presidents, foreign ministers, and the like (Soper 2017; Tarbell 2009, 159).

His name and that of *cundurango* became closely tied. This doctor obtained a small package of the bark from one of his patients, the Ecuadorian Minister in Washington. At that time, Dr. Bliss had no firsthand experience on the medicinal virtues of *cundurango*; however, he recommended it to be used on Mrs. Colfax based on the knowledge given to him by the Ecuadorian Minister. The case was a desperate one, and the results obtained by Bliss after the first days of treatment seemed to him to point to *cundurango* as a specific for cancer (Bliss 1871). The Vice President of the United States requested more *cundurango* for his mother in a letter to Minister Flores Jijon, where he reported that she was improving “even though the dose administered was small because of the shortage of *cundurango*” (Flores Jijon 1871). Both Dr. Bliss and Mr. Fish of the State Department, prompted by Mr. Wing, US Ambassador in Quito, publicized his findings in US newspapers creating great expectation about this new drug in cancer patients. Wing (1871a) assured Fish in a letter dated January 1871 that “believing, as I do, that if the Department will at once give publicity to it many valuable lives may be saved, and relief afforded in most painful and distressing cases of affliction.”

Bliss (1871) first reported his success in using *cundurango* to treat cancer in the *New York Medical Journal* on July 1871. In the introduction to his paper, Dr. Bliss acknowledged his direct relationship with the Ecuadorian Minister in Washington as his personal doctor. Then, he defended himself from the accusations that he expected to come from his “hypercritical and ungenerous of my professional *confrères*” (Bliss 1871, 57). He went on to describe the treatment with *cundurango* of three cases of breast cancer, two of them of women closely related to high standing political figures: Mrs. Mathews, the mother of Hon. Schuyler Colfax and a lady of the family of Hon. Mr. Gorham, Secretary of the United States Senate (Bliss 1871, 58, 61).

Dr. Bliss considered *cundurango* as the best-known drug yet discovered for the treatment of cancer. He described it as a blood purifier and anticipated that in a few years medical professionals would use it worldwide. D. W. Bliss, along with his brother Z. E. Bliss and Dr. P. T. Keene, set up a company in New York to trade with *cundurango* with the help of the Ecuadorian government (Flores Jijon 1871; Soper 2017, 10). Bliss’ advertisements for the *cundurango* appeared in newspapers from the 15th of September 1871 onward (Anon. 1871g). These advertisements were phrased with great enthusiasm: “*Cundurango!* The wonderful remedy for Cancer, Syphilis, Scrofula, Ulcers, and other Chronic Blood Diseases.” The reader was advised to write for the product, care of “Bliss, Keene & co., 60 Cedar Street, New York” (Anon. 1871h).

As we saw in the previous section, in 1871 *cundurango* didn’t have a scientific characterization, and its botanical identity was in debate. In this context, several providers of the promising drug disputed the authenticity of their product in advertisements in US newspapers. In response to this commercial strategy, the company of Bliss and Keene published a note warning the public that their competitor “promotes and sells a spurious article” claiming it to be *cundurango*. Bliss and Keene then detailed all the “costly” steps they had taken to ensure the authenticity and quality of their “wonderful remedy.” This strategy put forward two product quality guarantees: the direct connections with the Ecuadorian government of Garcia Moreno and the local authorities of Loja, as well as an expedition to procure the drug by one of the company’s associates, Dr. Keene. Dr. Bliss assured that his *cundurango* had been controlled from the origin to the bottle with the help of the government of Loja Province. Dr. Keene’s expedition to the South of Ecuador was even supported by the US Department of Agriculture, as shown by the record of the governor of Loja in July 1871 (Flores Jijon 1871; Eguiguren 1871a, 1871b).

The trip of Dr. Keene to Loja to procure the bark was publicized in several newspapers that reproduced the note printed in the *New York Tribune* (including Anon. 1871g, 1871i) promising

“notwithstanding these difficulties, a large supply . . . to reach New York by the Aspinwall steamers which are due in the 1<sup>st</sup> and 15<sup>th</sup> of August.” By October 1871, two different providers sold Cundurango through newspaper advertisements.

In this first advertisement there is mention of the large cost of the first batch of cundurango sold by Bliss, Keene, and Co. “at a price about one-quarter of that which the cost of the first very small supply compelled us to charge.” Since they charge 10 dollars a bottle, we can extrapolate that the first cundurango was sold at a price of 40 dollars a bottle. By April 1872, the price had dropped to 3 dollars and announced as “Supply of bark assured, price reduced” (Anon. 1871j). Until March 1872, you could obtain it only by sending a circular to the office of Dr. Bliss and Dr. Keene in New York, while from April onward it was “sold by all druggists” (Anon. 1872a, 1872b). In 1871, the advertisement did not include an image, but the authenticity of the product was said to be assured by having on them “our name, trademark, and full directions of use.” In 1872, the advertisement in *Harper’s Weekly* had an image of a Condor with a serpent in its beak; by April, the logo was much improved.

Another way to secure the monopoly of cundurango was the claiming of patents. Drs. Bliss and Keene obtained two patents in 1871 on cundurango (Anon. 1871j). Later, in California, another practitioner, Dr. Place, sold his cundurango bitter alluding to the fact that it was authentic and could be verified in two visual and material ways. First, because the bottle carried on its flanks the word “Cundurango” blown in the glass, and second, because the label bore his seal and signature (Anon. 1873). Dr. Place didn’t patent the formulation of cundurango; instead he patented the bottle as a commercial strategy to position himself as the best seller of this bitter.

Bliss’ therapeutic and commercial involvement with cundurango received heavy criticism by the Washington medical community (Soper 2017, 7-8). According to newspapers, the Medical Society of the District of Columbia issued a report, which included among other accusations that of quackery in connection with the new cancer remedy cundurango. In the eyes of this Medical Society, Dr. Bliss had tried to force a remedy into the United States that did not have the curative virtues it claimed. Bliss sought to defend his position in a story reported on July 27, 1871, in the *Grand Rapids Eagle* and in the *Washington Chronicle* (Soper 2017, 9). He denied that he had declined to collaborate with the MSDC in assessing the virtues of cundurango. He also denounced as false and malicious the declaration that he had persistently advertised exaggerated descriptions of the fabulous results obtained with this South American bark, knowing it at the same time to be completely useless. Bliss argued against a report published by a correspondent of the *Cincinnati Gazette*, which blamed the Minister of Ecuador in Washington of speculating with cundurango since he supposedly owned the only accessible lands where the vine could be procured. He was blamed of taking advantage of the US government for publicity. Dr. Bliss denied these accusations in the press by declaring that the Minister did not own an acre of land in the Province of Loja where the cundurango naturally grew (Soper 2017). Antonio Flores Jijon argued that it was preferable not to get involved in public controversies. He also declared that Dr. Bliss was preparing a “photo album” of the improvements and cures he achieved with cundurango in his patients (Flores Jijon 1871). We haven’t found any other trace of this very interesting documentation, it seems that it was never published.

This controversy regarding the “cundurango cure” held the attention of the medical community around the country throughout the fall of 1871. Most newspapers had a clear opinion about the drug, papers like the *Alexandria Gazette* and the *Washington Chronicle* accused Bliss of quackery, and others, like the *New National Era*, copying articles from the *Chicago Tribune* or the *New York Tribune*, defended Dr. Bliss and the cundurango as a cure of cancer, or at least defended the idea that it should be tested further before any final conclusion was made (Anon. 1871k).

The conflict of ethics of the medical profession and the world of advertising and the daily press was a concern of the medical societies at the time. The *Medical Record*, for example, discussed the appearance of laudatory paragraphs of medical men in the newspapers as an unethical way of gaining notoriety, “for the ostensible purpose of making business or advertising a specialty”

(Anon. 1871). This scientific journal ironically concluded that the rise of these laudatory notes was a sign that “either the secular press is beginning to appreciate the profession as a learned and skilful [sic] body, or that the profession itself is waking up to the idea that it must be its direct instrument of puffing” (Ibid.). However, the *Medical Record* argued, for a doctor the risk of using newspaper advertising was that they “lay themselves open to the imputation of being sneaking quacks” (Ibid.).

The press was identified as one of the main culprits for the quackery that was spreading “delusion and error over the face of society” (King 1858, 248-250). One of the tricks used by these nostrum-makers was to manufacture a “puff”, i.e. paying the editor of a newspaper to insert a fabricated story of a successful use of the drug as an editorial article. At the same time, charlatans amplified the effect of this commercial strategy by paying publishers of other papers to reproduce this article or to commend it in their own newspapers. Usually these articles included the testimony of a doctor who used the remedy and had obtained a miraculous cure (ibid., 290).

On the one hand, Porter argued that the quack or charlatan was intimately linked with the use of language for healing as well as for selling, while scientific medicine, from the seventeenth century onward, distrusted words as healing devices (Porter 1989). On the other hand, in the historiography on advertisements, the role of the quack nostrum has been identified as crucial to the development of commercial promotion (Crawford 2008, 2012; Lears 1994; Nevett 1982; Sivulka 2012). As Williams has shown, “all commerce has followed the quack” (Williams 2005, 179), since all advertising methods have used language and appeal first introduced by charlatans from the eighteenth century onward. At the same time, patent medicine played a crucial role both as the innovator and as the major investor in advertising in the United States accounting for a third of U.S. publisher’s revenues by the end of the nineteenth century. Bottlers were the main capitalists behind these nostrums’ publicity (Sivulka 2012, 34). Especially after the Civil War, there was an explosion of patent medicines and their advertisement that lasted until the regulation of medicines, labels, and fake medical claims with the Food and Drug Act passed by Congress in 1906 and completed with the Federal Food, Drug and Cosmetic Act of 1938 (Sivulka 2012; Young 2015).

Cundurango used the advertising methods identified as being part of the charlatan repertoire by doctors fighting for the professionalization of medicine (see King 1858). In 1871, US newspapers published several stories about the miraculous recovery of cancer patients treated with cundurango, stories about the strenuous expeditions to harvest the medicinal plant in Loja, as well as pompous ads calling it “the wonderful remedy for Cancer, Syphilis, Scrofula, Ulcers, and other Chronic Blood Diseases” (Anon. 1871h). Dr. Bliss was both the physician who first published favorable results on this new therapeutic drug, and a prominent figure as the merchant of cundurango. This conflict of interest, together with the advertising techniques used for cundurango clearly point to the domain of quackery. Interestingly, as we shall explore in the next paragraphs, it seems that the professional medical associations also used the daily press as a means to discredit one of its enemies, Dr. Willard Bliss, by accusing him of being a charlatan.

In the context of Reconstruction (1865-1877),<sup>7</sup> Dr. Bliss was a controversial physician that was part of the very small fraction of the all-white MSDC that supported the inclusion of physicians of African descent. Following the Civil War, thousands of freed slaves moved North in search of opportunities. Washington, D.C., saw an expansion from 61,122 African Americans to 109,199 between 1860 and 1870 (Dyson 1929, 7). This period in the history of the United States experienced an upsurge in racial violence, including the organization of the Ku Klux Klan. These racist organizations and actions tried to deter the application of the new laws seeking to include African Americans as equals in public life (Dubois 1935; Forner 2014).

Under the framework of racial exclusivity, membership in America’s professional organizations was restricted to whites only. At the end of the Civil War, the medical profession in the

<sup>7</sup>For an analysis of the era of Reconstruction in US History, see Forner (2014) and Dubois (1935).

United States was in a state of transition. Most physicians were apprentice-trained and knowledge about the causes of disease and infection was scarce. Treatment often included little more than blood-letting, sweltering, and purging. Medical quackery frequently crossed paths with scientific medicine and the general public had begun to lose trust in many regular physicians. In the century, medical societies were raised to protect and promote the learned or regular doctors that came out of the universities as distinct from those medical empirics, indigenous healers, and vagrant quacks (King 1858, 13). Physicians strived to gather in societies in order to advocate for the urgent need of stricter licensing requirements and to lobby for principles of medical treatment centered on scientific evidence.

Getting back to the role of newspapers in the cundurango controversy, we will discuss how advertising and patents were sometimes identified as barriers to the professionalization of medicine in the United States. One of the ethical cornerstones defended by medical societies in the nineteenth century was transparency. As King put it: “legitimate medicine has no secrets” (King 1858, 15). Thus, patent medicine was seen as a way into quackery since doctors could not verify the formulation of remedies (Young 2015). The fight against quackery through the examination and licensing of doctors was at the foundation of the MSDC since 1817 (Lamb 1909, 5-6), which, as we will see, became directly engaged with the disputed cundurango cure in 1871. Irregular doctors and charlatans were considered to have perpetrated frequent injuries and injustices upon the citizens of the District of Columbia. In this scenario, the MSDC undertook to inform the public about who were qualified to practice medicine and were worthy of confidence (Columbia 1909). The founders of the Society came from the social white elite of the United States. They described themselves as the “descendants of the better class of settlers who came to America . . . bringing with them the tastes, the courtesies and much of the wealth of the old European life” (Lamb 1909, 4). The MSDC played a dominant role in the nation’s capital. The Society was responsible for licensing all physicians and sat on the board of nearly every hospital in the District. It also had control of public sanitation (Lamb 1909).

By an act of Congress in 1871, the Society’s hegemony was challenged abruptly. A Board of Health of the District of Columbia was created, composed of physicians that were not members of the MSDC. Dr. Christopher C. Cox (1816-1882), who had a long animosity with the MSDC, was elected president of the board. He had long been at odds with the Society that accused him of being a major adversary against the battle over the exclusion of African American physicians from membership (Lamb 1909). Actually, the dispute over the role of doctors of African descent played a key role in how the American associations took shape.

In 1869, only four years after the end of the Civil War, three African-American physicians (Alexander Thomas Augusta, Charles Burleigh Purvis, and Alpheus W. Tucker) applied for membership to the MSDC. Although they met all eligibility requirements, they were denied admittance into this medical society grounded exclusively on their race. Among much exposure in the local newspapers, the three physicians and their supporters pursued a solution for these segregation practices of the MSDC. Despite intense discussions both in Congress and in the American Medical Association (AMA), this episode did not succeed in gaining acceptance for black physicians into the all-white medical societies (Morris 2008).

These discriminatory policies of the nation were the quintessential elements in the debate during the Reconstruction. After the American Civil War many efforts were made to amend the inequities of slavery and its political, social, and economic legacies. Reconstruction was a key moment in American history as an experiment of building an interracial democracy. As such, far-reaching changes in America’s political life were to be witnessed. At a national level, new laws and constitutional amendments permanently transformed the federal system and its definition of American citizenship. A politically organized black community joined with white allies to bring the Republican Party to power, and with it a new definition of the government responsibilities (Forner 2014).

These local political fights were part of the concert of elements that played a crucial role in the process by which cundurango and its promoters increasingly became framed as instances of medical quackery. The development and international trade of this remedy in the United States became entangled in larger debates such as the struggle for medical authority, professionalization, and equal rights for African Americans.

The cundurango dispute crystalized an ongoing internal problem within the Washington medical community in the 1870s. Dr. Bliss was engaged in a tug-of-war with the MSDC because of political differences concerning black physicians. Dr. Bliss opposed slavery and was close to abolitionist politicians like Lincoln and Colfax, while many of MSDC members were Confederate sympathizers. Bliss was one of the three doctors that first proposed three African American doctors as new members of the MSDC in 1869, with negative results. Two of them, Dr. Augusta and Dr. Purvis, were Bliss' colleagues in Freedmen's Hospital at the end of the Civil War (Moldow 1987). One of the leading opponents, Dr. Busey (1895, 245-246) described this quarrel as "the most angry, turbulent and widespread" in the history of the Society and identified Dr. Bliss with the "hostile faction" who promoted the admittance of physicians of African descent to the MSDC and later backed Senator Sumner's attempt to sanction the Society's discriminatory actions through a bill repealing the MSDC charter (Busey 1895, Morris 2008).<sup>8</sup>

In order to have a second opinion on his patients' cases, Dr. Bliss invited Dr. Cox as a professional witness. However, this turned out against him, and as a side effect, also against the introduction of cundurango in the American medical community, as we will see. The MSDC expelled Dr. Bliss for wilfully consulting in the case of Vicepresident Colfax with Dr. Cox, who was not a member of the Society, and in doing so, disobeyed the sixteenth regulation of this institution (Busey 1895). According to Dr. Busey's account (1895), C. C. Cox had asked for a practicing license from the MSDC in 1870, but he was reluctant to apply for membership. However, the press spread the news that he was denied entry into the association for being on the newly created Board of Health with Dr. Verdi, a homeopathic physician (Anon. 1871m; Busey 1895, 256-257). Cox had problems with the MSDC not only because of being on the Board of Health that was not controlled by the Society since 1871, but mainly because he was one of the promoters of civil rights and the visible figure backing the bill proposed by Senator Sumner to repeal the charter of this Society for not accepting black physicians into membership (Busey 1895, 258-259; Congressional Globe 1870; Morris 2008, 33, 41). Radical Senator Sumner had advocated for the acceptance of the first African-American Congressman for Mississippi, Hiram Revels, in February 1870 (Morris 2008, 24). The creation of the Board of Health that included a homeopathic doctor and a doctor non-member of the MSDC showed that during the 1870s the major struggle of regular medicine was the competition for authority between regular medicine and what Starr (2017) has called "sectarian" medicine, i.e. Eclectics and homeopaths, that was otherwise accepted by the general public as a matter similar to religious pluralism. The creation of this Board of Health came at a time when the discussion about licensing was opened, and the MSDC and the State Board of Health disputed the authority on granting or not medical licenses.

Since he had such good standing in Washington Dr. Bliss tested the power of the Society by trying to show that members that supported the consultation clause when regarding black doctors, ignored it when it concerned white male colleagues (Anon. 1872c). Actually, through the end of the nineteenth century there was an increase in consultations between regulars and homeopaths, and the majority of the violations to the code of ethics that forbade consultation with sectarians, also present in the American Medical Association, were only selectively enforced; and, by 1903 it was abolished (Starr 2017). Dr. Bliss publicized his consultation with Dr. Cox, a non-member of the MSDC, in the case of Vice-president Colfax, as well as, in reporting his cundurango trials (Bliss 1871; Busey 1895). And when answering the accusation, he confessed

<sup>8</sup>For a comprehensive study of racial discrimination and Medical Societies in the United States, see Byrd and Clayton (2000).

consulting as well with Dr. Augusta, “an educated and reputable colored [sic] physician” (Busey 1895, 287). The MSDC expelled Dr. Bliss after his confession in a way that would discipline its members and show the power and independence of the Society (Busey 1895, 290-291). This was the first time there was an expulsion from the MSDC (Moldow 1987, 98-102). When he defended himself in the newspapers, Bliss ended his letter saying that he expected to survive this expulsion from the MSDC to “prove to the world that I am neither imposter nor quack” (Anon. 1872c, 927).

It seems that national politics were part of the decision-making of the Society as well. According to Dr. Busey and newspapers like *The Democrat* or *The Daily State Register*, a great conflict of interests existed inside the MSDC. *The Daily State Register* employed a metaphor when referring to the animosity displayed by the medical community against Dr. Bliss and cundurango: “Hence the war of pestles and mortars, pills and lancets!” (Anon. 1871e). Starr (2017) has shown that the wars inside the medical community were fierce in the second half of nineteenth-century United States, however this case demonstrates that these animosities didn’t have to do solely on differences in medical ideology between regular and irregular doctors, but also on matters of national politics and racial discrimination. *The Democrat* described the expulsion of Bliss as a political act, and the MSDC as being ruled by confederates (*The Democrat* 1871, July 14, cited in Soper 2017). They also mention that a prominent member of the Society was part of “General Lee’s staff”; they alluded to Dr. Garnett who opposed cundurango in the press (Lamb 1909; Garnett 1871; Anon. 1871m). A letter from an old patient of Dr. Bliss in Armory Square was also published to advocate that cundurango should be given a try, that the medical society of Washington, for political reasons had built the story that it is a “humbug” (Anon. 1871k).

After his expulsion from the MSDC, Dr. Bliss was elected by the US President to the National Board of Health, together with Dr. Cox and Dr. Verdi, showing that he still had powerful friends in Washington (Morris 2008). Dr. Willard Bliss then returned to Grand Rapids, Michigan, where he had lived before moving to Washington, only to come back before 1880 (Soper 2017).

The second half of the nineteenth century saw the start of the consolidation of professional authority as a way to monopolize health, to strengthen medical association, and to denounce charlatans, midwives, and irregular doctors by stronger licensing as well as gradual incorporation of sectarian physicians in the fight against untrained practitioners (Starr 2017). In the context of the United States, in particular, newspaper advertisement culture and the inclusion of black regular doctors shaped the political agenda of these early medical societies. The main controversies were threefold: (1) the way the pharmaceutical industry promoted its products, (2) the government’s role in regulating the medical profession, and (3) the place of African Americans in regular medicine. The study of the reception of cundurango in the United States is of special interest, because it is touched on all these debates.

## Conclusion

In this article we have seen the complexity of the local and international circulation of a new plant with alleged medical properties against cancer, as well as knowledge regarding this vine. The trouble of obtaining cundurango for scientific observation and experimentation was constant, whether in Quito, Guayaquil, or Washington. For this reason, none of the first results were conclusive of the real virtues of this vine. Ecuador was determined to disseminate and validate knowledge produced by its doctors and pharmacists in order to provide a new drug to demanding markets. However, the difficulty of transportation together with the problem of the identification of the true cundurango, in a context of speculation and sensational demand, gave way to falsifications that made both the experimentation as well as the acceptance of the drug even more challenging. The commercial interests of both the Ecuadorian and United States governments pushed for publicizing cundurango as a wonder drug before any incontestable proof of its specificity against cancer was made.

Through personal relationships, the Ecuadorian and American governments sponsored an individual doctor and its nostrum project; but the political conflicts that Dr. Bliss had within the Medical Association of the District of Columbia unleashed a fierce attack in the press against himself as a reputable doctor and professional distrust in cundurango. Since its main efforts were made to combat quackery, the MSDC built in the press, with the usual elements at hand, the paradigmatic figure of the charlatan around Dr. Bliss and his cundurango. As we have argued, Dr. Bliss and Dr. Cox, at the same time that they promoted cundurango, fought for the inclusion of black doctors into this Medical Society that was in its majority a supporter of white superiority and segregation. We have seen that the daily press played a very important role both in the rapid dissemination of cundurango news, as well as in the sensationalist language associated with the quacks' means of advertising in which this information circulated. This case study shows that the circulation of drugs and the determination of whether a doctor or his promoted cure is accepted or not by the medical establishment doesn't only depend on the background or professional instruction of the physician, but also on local politics, and ethical concerns about discerning the medical professional from the businessman.

In due time, the clinical trials showed that cundurango was not a cure for cancer, but helped patients recover their appetite and made to feel better. Their wounds and tumors would become less tender, without altering the progression of the disease from which they finally died.

A particular aspect of this story is that the news spread very quickly in the media as soon as the cancer patients treated with cundurango by Dr. Bliss showed improvements. Dr. Bliss, the Ecuadorian Legation in Washington, and the US State Department soon became swamped with letters from lay people as well as professional doctors asking for some cundurango. This public pressure determined the attitude towards publicizing the preliminary information already gathered by the State and the doctors that had access to the drug, as well as haste in completing clinical trials with the scarce amount of cundurango available in the United States.

Finally, another aspect of this complex case is the recognition of the prestige, but at the same time the disapproval of the medical language and diagnostic capacities of Ecuadorian doctors. It will be very interesting to continue with this work to compare the debates in other parts of the world where Ecuador sent samples for testing the cundurango, as well as to see the implications in the Ecuadorian hospitals, medical professionalization, and in the economy of the Loja region of this international circulation of cundurango.

The international circulation of medicines, knowledge and commerce depends both on the context of international relations mediated by commercial interests and personal relationships, as well as local politics. This resonates with the findings on charlatans in nineteenth-century Latin America made by Podgorny (2017), where the introduction of new drugs was quickly adapted to the local marketing ways.

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