THE DECLINE OF DOM PEDRO II'S EMPIRE AND HEALTH

Neurophatogenic implications

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ABSTRACT - The main objective of this paper is to know the medical doctors of the Emperor, the preconized treatment, and the knowledge about diabetes at that time, its repercussions on the Emperor's nervous system, and the related political implications. A narrative revision was made, based on primary and secondary sources. Dom Pedro II was examined by the aristocracy of the medicine at the time, especially Jean-Martin Charcot, amongst the doctors of international reputation, and Cláudio Velho da Motta Maia, amongst the Brazilian doctors. Charcot diagnosed in the Monarch: mental stress, diabetic neuropathy, and a cerebral vascular lesion, probably a stroke, that he differentiated from other vascular obliterations elsewhere. He demonstrated his knowledge about diabetic neuropathy, possible topographical alternatives to justify the urinary incontinence, and Dom Pedro's weakness in the legs. Throughout his illness, Dom Pedro II presented others manifestations that contributed to his physical fragility, and that, certainly too, to his political decline, deposition and the proclamation of the Brazilian Republic.

KEY WORDS: diabetes, diabetic neuropathies, stroke, history, Brazil.

O declínio do império e da saúde de Dom Pedro II: implicações neuropatogênicas

RESUMO - O objetivo principal deste artigo é conhecer os médicos do Imperador, o tratamento preconizado e o conhecimento da ocasião sobre o diabetes, principalmente sobre suas repercussões no sistema nervoso do imperador e suas implicações políticas. Isso foi feito por uma revisão narrativa, baseado em fontes primárias e secundárias. Dom Pedro II foi examinado na ocasião pela aristocracia da medicina, a ressaltar Jean-Martin Charcot, dentre os médicos de reputação internacional, e Cláudio Velho da Motta Maia, dentre os brasileiros. Charcot diagnosticou no Monarca, além de tensão mental, neuropatia diabética e quadro vascular cerebral que ele diferenciou de outras obliterações vasculares em localizações diversas. Ele demonstrou o seu conhecimento sobre a neuropatia diabética, possíveis alternativas topográficas para justificar a incontinência urinária e a fraqueza nas pernas. Dom Pedro II, ao longo da sua doença, apresentou uma série de manifestações que contribuíram para a sua fragilidade física e certamente também para o seu declínio político, deposição e proclamação da República no Brasil.

PALAVRAS-CHAVE: diabetes, neuropatia diabética, acidente vascular cerebral, história, Brasil.

Dom Pedro II died in his Parisian exile, in 1891, and he had Chief of State deathwatch homages, in spite of being deposed two years before by the Brazilian republicans¹. This was a manifestation of international notoriety of the intellectual of noble lineage, of the "monarch patron", who participated in the construction of the Brazilian nation. Dom Pedro II governed Brazil during almost 49 years, under the Brazilian Constitution of 1824². Pereira³ remembers that the institution of the monarchy helped to keep the unit of the country. However, the empire was not in a period of great economic development, because the

country was dependent on the enslavement and latifundium economy that were in decline^{3,4}. The economic decay of the sugar aristocracy was, according to Basbaum⁵, "the basic cause of the Republic". Forward, a new aristocracy started to appear in the economic and social life of the country: the aristocracy of the coffee came mainly from the west of São Paulo whose intervention in the political life would lead to the Republic⁵. This article main approach is the health care and the negative repercussion on the politics, of the physical decline of Dom Pedro II, precipitant factor of the the Republic proclamation⁶. His

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relationship with eminent doctors is emphasized, especially with Jean-Martin Charcot and Cláudio Velho da Motta Maia⁷,8.

THE INTERNATIONAL NOTABLES OF THE MEDICINE

Dom Pedro's third trip abroad from June 30, 1887 to August 22, 1888 started with a serious health problem^{2,9}. In 1887, Motta Maia and Albino Alvarenga informed that four years before the Emperor suffered from glicosury⁶. At the end of February of this year, the Emperor got sick in Petrópolis, being examined by Motta Maia and Sabóia, physicians of the Paço (palace synonymous), and by Albino Alvarenga, Council member. They diagnosed hepatic congestion and recommended that the Monarch rested in the Águas Claras Farm^{1,10}. In a letter of April 7, 1887, Alvarenga mentioned to Motta Maia that the community commented that the Emperor was bad, and that they were being accused of not promoting a medical conference¹¹. Thus, the monarch's medical assistants made a consultation to a Brazilian physician most important at the time, João Vicente Torres Homem (April 28, 1887), who died the same year. The physicians did not find "functional disturbances of the nervous system" in the eminent patient^{1,10}. The Emperor went to Tijuca, with therapeutic intentions^{1,10}. Some doctors of the Imperial Chamber had visited the illustrious patient among them the Council member Torres Homem also arrived some times, in conference with the other doctors. However, as Dom Pedro II did not have the complete reestablishment of his health, it was recommended that he should go to Europe. He went to Portugal, Spain, France, Germany, and came back to France, Italy, and, again, toward France. Motta Maia had a great responsibility to watch over the Emperor's health, and he congregated a group of French medical notables to examine the Monarch in his arrival to Paris: Bouchard, Michel Peter, Brown-Séquard and, finally, Jean Martin Charcot^{1,10}. The doctors' opinion was that the Emperor's health was satisfactory, and that a malaria (palustre) fever had left "resentful" the mined organism by the diabetes, besides the excess of work¹⁰. The treatment recommended by Motta Maia had full approval by his European colleagues. The following medicines had been prescribed to the Emperor: iodide of iron, extract of valerian, sulphate of strychnine, hydrotherapies and rest^{10,12}. Santos¹² remembered that, at the middle of the XIX century, the patients with diabetes were treated with sodium bicarbonate and calcinated magnesia, vapor baths and body friction with a flannel.

In the case of Dom Pedro II, his doctors reached an agreement about the indication of a period in Baden-Baden, Germany, station of cure and rest, with applications of douches, massages and gymnastics^{1,6,10} (In the Charcot medical opinion of October 23rd, 1887 he considered the diagnosis of cerebral vascular episode: "...certains accidents cerebraux surtout quand ils sont de nature ischémique, ou congestive, pourraient être en effet amendés par l'application à la nuque de vesicatoire ou de points de feu. Céla est incontestable, mais que non prouve que dans le cas de S. Majesté, il s'agisse d'ischemie au d'hyperemie cérébrale ou bulbaire? Rien, absolument rien..."1). There, the Emperor was observed by Adolf Kussmaul¹. He agreed with the diagnosis and the previous recommendations. In Milan, on May 3rd,1888, the Emperor was very prostrated, in a semiconscious state. At this occasion, Motta Maia consulted Mariano Semmola, of Naples, and Giovanni, of Padua. They had evidenced a "dry pleuritis"⁶. It was sent a telegram to the Court, with the following text: "dry pleurisy with transitory respiratory phenomena of bulbar origin. Absolutely nothing cerebral". There is mention to a dyspneic state with 42 respiratory incursions per minute". It would arrive in Brazil, coming from Italy, dating of the same day of the Abolition of the Slavery, a telegram informing about the state of health of the Emperor, but written in French: "Fièvre prèsque cessée. État nerveux calme". This telegram was signed by the Emperor assistant doctors⁶. At this time, there is also the correspondence from "medical notabilities of Europe" to Motta Maia signalizing that beyond the dry pleurisy there was general phenomena of nervous motor weakness, nervous phenomena of paretic nature of the respiratory and cardiovascular vasomotor center nuclei11. We can speculate that the Emperor would presente clinical vegetative manifestations as consequence of the diabetes metabolic decompensation. There was also concern about an "intellectuel" surmenage¹¹. In this case, the French term can be translated as exhaustion or excess of work. There is a recommendation made by Semmola of a permanent application of cold on the forehead and hypodermics injections of caffeine in high doses, as the only therapeutically measure capable of strengthening the bulbar centers^{1,11}. Charcot arrived days later in Milan, and he agreed with the formulated diagnosis and the treatment applied to the Emperor¹¹.

After he recovered, the Emperor left Milan to Aixles-Bains, where he stayed until the middle of 1888, and then he returned to Brazil. At this time (July 29, 1888), a letter addressed to Motta Maia and signed

by Charcot, Giovanni and Semmola commented on the Emperor's diabetic trend (diabetes intermittent), with the recommendation to prevent "any bigger emotion of moral character and that he took care of the duration of the hours of vigil"11. They advised the continuation of the use of the strychnine, and stressed the "example of cautious activity and self-denial" of Motta Maia, citing more that "you deserve the esteem and admiration of all the members of our profession"11. On this occasion, there is the register of the presence of the monarch with his two doctors and friends in Aix Les Bains (Fig 1). The correpondence between Charcot and Pedro II, proves their friendship. In a letter of Charcot to Motta Maia, of November 29th, 1887, there is the register of a probable stroke¹: "...Il s'est agi là d'une parésie légère, monoplégique du membre inférieure gauche, et cette parésie relève, suivant toute vraisemblance en raison des autres circunstances du cas, d'une ischémie partielle et transitoire, que será produite dans l'écorce vers l'extremité supérieure des circunvolutions ascendentes. La localization des monoplégies crurales est, vous le savez, seule des mieux établies qui existent aujoud'hui, Je place immédiatement la localization dans l'écorce, sans entrer dans les détails qui nous ont conduit à rejeter l'existence d'une affection spinale, ou encore d'une ischémie du membre lui-même, produit par une oblitération temporaire, même, ou un spasme des vaisseaux du membre lui-même.". Charcot, of modest origin, was the founder of modern neurology and man of the great medical and social prestige7. Dom Pedro was a distinguished guest, especially in the Charcot Tuesday suppers in the Boulevard Saint-Germain⁸. Charcot already kept a relationship with the Emperor, before his well-known problems of health. He thanked Dom Pedro II for his nomination as knight with the supreme-cross of the Order of the Rose, feeling himself very proud for receiving it from a liberal sovereign, whom he always admired as a wise man and a person that he learned to love (letter to the Emperor of March 15, 1869)11. Another letter, undated, between the same correspondents, mentions the subscription to the monument for Auzoux (anatomist and creative French doctor of anatomical models), that was received with enthusiasm by all the scientific community¹¹. Dom Pedro's last years, in Paris, had been of an intense cultural and social activity, but his health decayed, due to diabetes and the deportation. In letter of January 24, 1890, Charcot commented with Dom Pedro II that he was very happy with his presence among them in France, therefore this proximity was a great moral comfort for all". He lamented the deep pain of the Emperor (one month before he lost his wife) but commented that his love to the science would be an easier factor. Also he mentioned the "fortuitous events of injustice and ungratefulness of the people" (vide announcement of the Republic and banishment, happened few months before). In this same letter, he commented that science met a little "of recess" and that nothing happened more interesting than the sharp speech by Berthelot on Lavoisier, in the Academy. At this time (April), Charcot mentioned again the emotional stress that destabilized the health of the noble man: "... Lors de l'episode de Milan, le surmenage physique et intellectuel avaient éte la cause; cette fois, à Cannes, Il s'agissait surtout du surmenage moral, si jê puis ainsi parler, et il suffit de se remettre em mémoire lês tristes et douloureux événemnets survenues quelques mois auparavant, pour comprendre ce que veux dire..."1. It is interesting signalizing that the French master used the same term as used before, but he differentiated its manifestations, suggesting having depressive characteristics in the clinical picture of D. Pedro II. Charcot examined Dom Pedro II some months before his death, and certified that he did not undergo urinary incontinence as consequence of any kind of brain suffering⁶. A letter from June 17th, 1891 details some aspects of the illness of Dom Pedro that culminated with his death11: resolution of gangrene initiated in one of his fingers of the foot and there was recommendation to prevent the use of vesicatory, etc; resistant urinary incontinence to the use of ergot rye, that was difficult to explain, and did not seem related to the disorder of his bladder, prostate, or brain. In this letter, the master excluded once again the possibility of an important problem in the brain, or the spinal cord. He concluded, by exclusion, that as much as the bladder as the weakness of the inferior limbs disclosed problem of nutrition of the peripheral nerves caused by the diabetes. He emphasized that this type of suffering would be common in the course of diabetes, and he concluded that the ergot derivatives would not have to be prescribed, unless in very moderate doses (Fig 2). The intellectual and ex Brazilian Emperor died on December 5, 1891, when he was 66 years old, while living in the modest Bedford Hotel, in Paris. Charcot, Motta Maia and Bouchard signed his death certificate, signalizing the acute pneumonia on the left lung¹. We infer based on this all correspondence that Dom Pedro presented on varied clinical manifestations, mainly neurological, secondary to his primary illness (diabetes): reduction of the vision, vegetative manifestations, peripheral



Fig 1. Dom Pedro II's photo with his doctors and friends, Jean-Martin Charcot and Cláudio Velho da Motta-Maia, on July, 1888, in Aix Les Bains (authorized reproduction by the Museu Imperial/IPHAN/Min.C).

vascular injuries, peripheral neuropathies and a possible stroke of fugax character, beyond related emotional manifestations, certainly, related to historical events that culminated with his banishment from his country of birth.

PHYSICIANS OF THE IMPERIAL CHAMBER

Several physicians gave attendance to the royal Brazilian family, in the second reign^{1,13-15}. Among them, were professors of the Faculty of Medicine of Rio de Janeiro, some of them reached its direction. Some were linked with the origins of the Brazilian Neurology and Psychiatry such as Jose Martins da Cruz Jobim (1802-1878) and João Vicente Torres Homem (1837-1887) who is considered one of the greatest clinical physicians of all times in Brazil, and the author of the first neurological book in Brazil: Lições de doenças do sistema nervoso⁷. He attended to the Emperor during his illness in the beginning of 1887^{1,10}. The influence of the Emperor in the Brazilian public life is evident

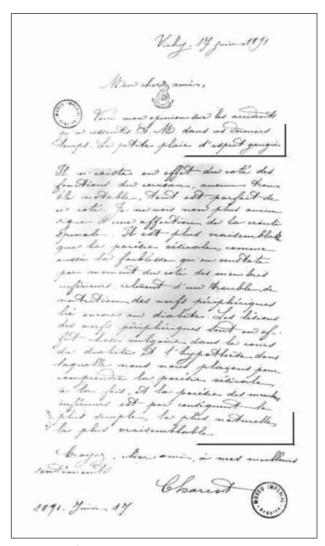


Fig 2. Letter from Jean-Martin Charcot to Cláudio Velho Motta Maia (authorized reproduction by the Museu Imperial/IPH-AN/Min.C).

in the deference of the great physician to the monarch; printed in his book Elementos de clínica médica (1870) (Fig 3). Cláudio Velho da Motta Maia (1843-1897) graduated in Medicine on November 27, 18661. On February 25, 1871 for "merit and qualification in contest (concurso)" was nominated Opposing professor (alternative) of the Section of Surgical Sciences of the Faculty of Medicine "of the Court", in the document signed by the Emperor¹. He assumed his office on March 22, 1871, signed by Jose Martins da Cruz Jobim¹. He was professor of the chair of Surgical Anatomy, Operatory Medicine and Systems, from 1880 to 1891. The Emperor appointed Motta Maia to the vacant function of Vice-Diretor of the Faculty of Medicine of Rio de Janeiro. The director of the Faculty, Vicente Candido de Figueiredo Sabóia, in a fastigious period of the Faculty, claimed that the Professor suf-

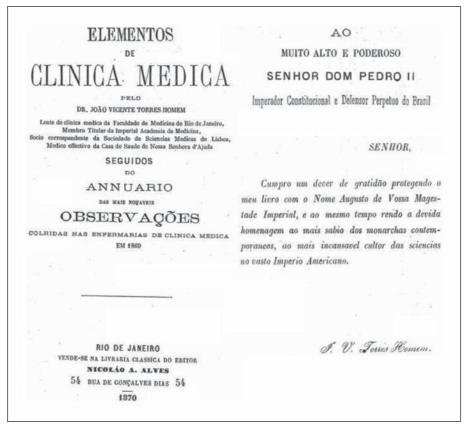


Fig 3. João Vicente de Torres Homem and his reverence to the Emperor

fered from internal rejection in the College¹. Motta Maia was awarded by the Imperial Government with a scholarship, 1875/1876 (two semesters). He studied in the "Collége de France" with Louis-Antoine Ranvier (1835-1922), one of the most important specialists in Histology¹. At the apex of his profession, Motta Maia was nominated, on April 26, 1880 as Physician of the Imperial Chamber¹. In the recognition to the medical care held by Motta Maia to the population and, mainly, to the imperial family, he was awarded successively with the titles of Noble Knight, Baron, Visconti, and Count¹. Motta Maia, in his return from the trip to Europe with the Emperor, received a letter from the "divine master" Francisco de Castro, on August 24, 1888, where he express his admiration as disciple and friend grateful for the work of Motta Maia11.

THE CONSTRUCTION OF THE NATION AND THE END OF THE MONARCHY

Dom Pedro appeared to be older. He was precociously aged and responsible for a throne¹⁶. Lyra⁶ remembers that, when he was 60 years old, in 1885, all his appearance was of an old septuagenarian. Effectively, in the last years, the diabetes mined him, his steps were unsteady and the feet almost crawled⁶. On November, 1877, the beginning of his physical de-

cline was already perceived. He presented excessive daytime sleepiness and also had story of reduction of vision^{2,17}. The "Revista Ilustrada" made a caricature of the sleepy monarch, in his volume of February 5, 1887, amongst several other similar². The hypothesis of mental decline of the Emperor was a political weapon fed by his appearance of a man well older, even more that his fragile health was well known, but not in such a way that it was suggested by the enemies. According to Lira⁶ "... the Emperor was being accused to have lost almost his complete power and, judged him affecting in his mental faculties, and suffering from precocious senility. This would be the reason for which he would permit to dominate himself by certain frequenter of the Paço, over all by his reliable Physician, the Count of Motta Maia, who, for many, looked like the inspirer of the imperial politics... ". Von Seiller, minister of Austria (1877) also informed that the rumors that the Emperor's mental faculties were weakened and that he could no more make a decision for himself and his government could be considered finished, but he contested this, affirming that Dom Pedro kept a intellectual integrity⁶. Nothing favored this supposed intellectual decline, according to the documents, or doctors depositions. However, on had little propensity for one third

reign, being the State chief health problem an important fact for the extinction of the monarchy¹⁸. João Penido, a Member of the House of Representatives, generated a petition to the Chamber to proceed a convenient examination to define if his Majesty was in conditions to conduct the country, and to clarify to the public opinion about the cerebral state of the Prince reigning, by means of a commission of the Chamber choice¹⁹. This petition was denied¹⁸. Rui Barbosa wrote a series of articles in the daily Diário de Notícias, on May, 1889 after the publication of João Penido's petition. Rui Barbosa did not believe the assertives of the Ministry about the Emperor's health, and perceived a cerebral incapacity that would demand a parliamentary inquiry. These health problems hindered a softer regimen transition from monarchy to republic4. Quintino Bocaiuva, amongst many, supported this change only after Dom Pedro II death4. The happenings in this year led to the announcement of the Republic on November 15, 1889, and the Dom Pedro deportation. Back to Europe, he generated the alternative of return to his homeland, and he kept in the closet of his room, in a small bundle, in which was found, after his death, a paper with the words: it is the soil of my country, I desire that it will be put in my coffin⁶. It was used as cushion where his head rested¹. His mortal remains came back to his native land only in 1922, during the commemorations of the Independence centenarian². The post-mortem homage in Brazil had a delay of three decades from that apotheotic that occurred in Paris, in 1891, on the occasion of his death.

CONCLUSIONS

Dom Pedro II had the support of the majority of the Brazilian elites in the start of his reign. However, at the end, a combination of factors, among them his physical decline, his diabetes and neurological complications, more clearly the diabetic neuropathy, contributed to the extinction of the monarchy. As he was not feeling physically well, he was moving slowly away from the government. The absence of the Emperor, in trip abroad for treatment of health, coincides with the eradication of the slavery in Brazil, one of the stages for the implantation of the Brazilian Republic. Consequently, at the end of the XIX century, with the unit of the country assured and the abolition of the slavery accomplished, the local leaderships already did not need the constitutional monarchy and its agglutinant role. The Emperor medical assistant looked for assuring that all the adopted medical measures were adjusted and in keeping with the

best premises of treatment of diabetes at the time. Dom Pedro II was assisted by the most prominent Brazilian and foreign doctors, especially by Jean Martin Charcot and Claudio Velho da Motta Maia. Charcot recognized the repercussions of diabetes in Emperor nervous system, standing out the peripheral neuropathies. He looked for preventing the abusive use of strychnine, ergotaminic derivatives, or application of synaptic, all with potential adverse side effects. After the deportation, Dom Pedro emotional and physical manifestations of his basic illness got worse, taking him to the death two years later.

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REFERENCES

- Motta Maia MAV. O conde de Motta Maia. Médico e amigo dedicado de D. Pedro Segundo: reminiscência do segundo reinado. Rio de Janeiro: Livraria Francisco Alves, 1937:31, 36-37, 42-52, 60, 63-149, 178-179, 304, 331, 374-377.
- Schwarcz LM. As barbas do Imperador . São Paulo: Compainha das Letras, 1998:48, 420, 432, 433, 494, 503, 513, 529-538.
- 3. Pereira, LCB. Pobres elites iluminadas. Estud. av. [online]. 2000;14(38): 235-246. Available from: http://www.scielo.br/scielo.php ([cited 2007-01-30]).
- Fausto B. História do Brasil. 8.Ed. São Paulo: EDUSP, 2000:183-185, 216, 220, 229, 232, 235.
- Basbaum, L. História sincera da República. Das origens até 1889. São Paulo: Editora Alfa-Omega, 1976:237.
- 6. Lyra, H. História de Dom Pedro II, 1825-1891: declínio, 1880-1891. V. III, Belo Horizonte: EDUSP/Itatiaia, 1977:40, 41, 55-57, 78, 61-62, 163.
- Gomes MM. Marcos históricos da neurologia. Rio de Janeiro: Editor Científica Nacional, 1997:138-140, 159.
- 8. Teive HA, Almeida SM, Arruda WO, Sa DS, Werneck LC. Charcot and Brazil. Arq Neuropsiquiatr 2001;59:295-299.
- 9. Silva L. Vida, educação, governo e morte de Pedro II. RIHGB 1925;152: 911-948.
- 10. Fonseca O. Moléstia do Imperador . RIHGB 1925;152:186-193.
- 11. Arquivos Museu Imperial. I-DMM 07.04.[1887] Alv.c; I-DMM 1887/1892 Cha. C 1-19; M. 145-Doc 7074; M.28-Doc. 988-cat.B; M.202-DOC 9168; M. 203-Doc.9221; I-DMM 24.08.1888 Cas. C.
- 12. Santos LC Filho. História geral da medicina brasileira, V. II, São Paulo: Hucitec/EDUSP, 1991:33, 289.
- 13. Fonseca O. Médicos do Paço. RIHGB 1925;152:174-185.
- Vargas SSM, Valladares AF, Gomes MM. Direções e aspectos politicoadministrativos. In: A Faculdade de Medicina primaz do Rio de Janeiro em dois dos cinco séculos de história do Brasil. São Paulo: Atheneu, 2001:1-24.
- Casa de Oswaldo Cruz / Fiocruz. Dicionário histórico-biográfico das ciências da saúde no Brasil (1832-1930). Escola anatômica, cirúrgica e médica do Rio de Janeiro (URL: http://www.dichistoriasaude.coc. fiocruz.br/iah/P/verbetes/escancimerj.htm, 03.09.2006).
- Gomes MM, Fontenelle LMC. The Emperor Dom Pedro II: his convulsive seizures when a boy. Arq Neuropsiquiatria, In press.
- Barman RJ. Citizen emperor: Pedro II and the making of Brazil, 1825-91.
 Stanford: Stanford University Press, 1999:299, 329, 330, 388, 389, 398, 411.
- Hahner JE. A moléstia do Imperador e as interpretações da queda do Império. RIHGB 1971;293:3-15.
- 19. Diário de Notícias. A moléstia do Imperador. 18 de maio de 1889; 5(1434):1.