Two classes of apoplexy in the Colonial press

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Abstract

In 1787, three Colonial physicians quoted from Le Clerc (1726-1798) in the Gazeta de México. The French author lists six specific cases where bloodletting is often fatal, including two kinds of apoplexy: the serous and the lacteal. Both conditions are nowadays unknown to the majority of specialists in clinical neurology, and we therefore conducted a historical review of these conditions.

KEY WORDS: *History. 18th Century. Neurology. Brain. Mexico. Stroke.*

Il a dû se passer quelque chose d'extraordinaire en lui, car il me semble être *sous le poids d'une apoplexie séreuse imminente.*

Honoré de Balzac[1]

Introduction

An enormous loss of life traversed New Spain in the years of 1785 and 1786. Some authors have explained this catastrophe as being the result of infectious diseases[2]. In those days, among the periodical publications, the *Gazeta de México* (Gazette of Mexico) was the most important medical discussion forum[3]. On Tuesday, March 3, 1787, doctors Miguel Fernández and Joaquín Pío, and bachelor Joseph Vásquez, published in this *Gazeta* a notice communicating their reading of the *Relación* (1786) by José Masdevall Terrades (c. 1740-1801), a doctor from Figueres, and then noted that the fevers that were ravaging New Spain were "if not exactly the same, at least of the same class" to those previously referred by Masdevall. They concluded their notice by sharing their experience in the treatment of these fevers[4-6].

Although very short, this notice has three footnotes[4]. In the second one, the authors quote a fragment of "Domestic medicine" (1769), William Buchan's (1729-1805) popular book, in its Spanish version. This book was translated into Spanish in 1785 by the Irish presbyter Pedro Sinnot, who had delved into the English edition, although he also incorporated French translation's annotations, which were written by Jean-Denis Duplanil (1740-1802) in 1776[7-13].

The quoted fragment belongs to chapter XIII ("Of Fevers in General"), which in the French edition was moved to second volume's chapter II (*Des Fievres en général*)[7,12]. Duplanil quotes there the *Précis* of Joseph Lieutaud (1703-1780), and then the first volume of *Histoire naturelle de l'homme, considéré dans l'état de maladie* (1767), by Nicolas-Gabriel Clerc (1726-1798), where the latter lists six particular cases where bloodletting is often fatal, including two apoplexy classes: the serous and the lacteal[12,14-17]. Both morbid conditions are nowadays unknown for most neurology specialists, and we therefore conducted a historical review of them.

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Apoplexy in the 17th and 18th centuries

Before going any further it is necessary to put the meaning of the term "apoplexy" into the context of medical literature of that time: the stroke of our terminology, understood as cerebrovascular accident, is not synonym of the apoplexy of the past[18,19]. Buchan, in chapter XLI of his book, defines it as "a sudden loss of sense and motion, wherein the patient is to all appearance dead; the heart and lungs however still continue to move"[7]. Therefore, this term did not then refer to a particular morbid condition, but to a syndrome.

Serous apoplexy

According to Buchan, "the immediate cause of an apoplexy is a compression of the brain, occasioned by an excess of blood, or a collection of watery humours. The former is called a *sanguine*, and the latter a *serous apoplexy*". Then he adds that symptoms do not substantially differ between both apoplexy classes: "If the patient does not die suddenly, the countenance appears florid, the face is swelled or puffed up, and the blood-vessels, especially about the neck and temples, are turgid; the pulse beats strong; the eyes are prominent and fixed, and the breathing is difficult, and performed with a snorting noise. The excrements and urine are often voided spontaneously, and the patient is sometimes seized with vomiting"[7]. Except only that, in serous apoplexy "the pulse is not so strong, the countenance is less florid, and the breathing less difficult"[7,12].

Although not explicitly, Théophile Bonet (1620-1689), in his *Sepulchretum* (1679), had also divided apoplexies into sanguine and serous[18]. Apparently, this distinction was generally accepted when Londoner John Cooke (1756-1838) published *A Treatise on Nervous Diseases* (1820). In this treatise, Cooke mentions that, even when contemporary opinion suggested that serous apoplexy was less common than sanguine apoplexy, there were some that even questioned its existence as a particular morbid condition as, for example, Scotsman John Abercrombie (1780-1844)[19].

In the period when Buchan flourished, Frenchman Leon Rostan (1790-1866) had not yet described softening (*ramollissement*), and neither had Bordelais François Magendie (1783-1855) popularized, among the medical community, the idea of cerebrospinal fluid (*liquide céphalo-rachidien*)[19-21]. This means that, at the time Buchan wrote his "Domestic Medicine", when a patient died from apoplexy and no blood or other intracranial finding was observed in the autopsy, death was attributed to any amount of fluid around the brain or within the ventricles. The physiological role of cerebrospinal fluid did not promptly permeate among 19th century clinicians. In his "Clinical Lectures", Dubliner Robert Bentley Todd (1809-1860) already describes how the ventricular system normally contains cerebrospinal fluid: "You will find, I think, I may say invariably, that the accumulation of fluid in the ventricles, *when it exceeds a certain amount*, produces coma. [...] On the other hand, the increase in the subarachnoid fluid is not in itself accompanied by any special symptoms. This augmentation of a fluid which naturally occupies the subarachnoid space, is due entirely to a shrinking or diminution in the bulk of the brain, from whatever cause; and its quantity bears, too, an inverse proportion to the bulk of the brain"[20,22].

Lacteal apoplexy

André Levret (1703-1780) addresses the subject of lacteal apoplexy in women at delivery (*apoplexie lactée des femmes en couches*) in the second edition of *L'art des accouchemens* (1761). In 1778, Félix Galisteo y Xiorro translated this book into Spanish under the title of *Tratado de partos (Treatise on deliveries)*, where it reads: "A women at risk for lacteal apoplexy [*apoplexie laiteuse*], the lochia that she deposes regularly are viscous, or in the manner of mucus, *and in very small amount,* […] although the abdomen is calm and soft; urine is good and appears natural for all its circumstances, as well as defecation, when it occurs; the pulse is generally irregular and accelerated; the skin is dry without being hot, and these symptoms appear since the second day after delivery, and sometimes even much before. Very shortly afterwards, some slight disturbances of the spirit are noted: the patient feels slight shivers in hair-covered skin; she has terrors of death; she sees fantastic images, either asleep or already being awake; sometimes her eyes are with ferocity and like brilliant, or instantly fixed. There are women that, in such cases, stutter when they normally do not do it, and other experience a sudden headache, as they just had sustained a violent blow, which most thus believe: this first accident is followed by ringing in the ears, *coma*, *rale* or snore, mouth twitching, sardonic grin, tendon shuddering, and even violent convulsions and, finally, by death" *(sic)*[23-25].

Levret continued as follows: "Among women who liberate themselves from lacteal apoplexy, there are few

who remain paralytic; but some experience all symptoms of malignant fevers; other, those of putrid synochal fevers; and some, those of abdominal inflammation" (sic)[25]. In his treatise, Frenchman Alfred Velpeau (1795-1867) equates lacteal apoplexy with eclampsia, and both them with puerperal convulsions[26,27]. In turn, German gynecologist Franz von Winckel (1837-1911), following the study by Gottfried Eisenmann (1795-1867), mentions lacteal apoplexy (*Milchapoplexien*) among lacteal metastasis' (*Milchmetastasen*) avatars, which is one of the hypotheses formulated in the past to explain puerperal fever. This makes full sense when remembering that, in those days, Ignaz Semmelweis (1818-1865) was not even born[28-32].

Conclusion

In his nosology, Scotsman William Cullen (1710-1790) included serous apoplexy as an idiopathic species of the *apoplexia* genus, in the *comata* order of *neuroses*, a class that encompasses preternatural sense and movement illnessess, without idiopathic or primary pyresis, and without local disease. Lacteal apoplexy is not part of this classification[33,34]. It is not easy enquiring into a disease's path in historical traffic[18]. However, currently, some fraction of serous apoplexy diagnoses could be explained by cerebral infarction. On the other hand, certain cases of lacteal apoplexy might be inserted in the spectrum of post-partum infections, while others would do it in the gamut of pregnancy hypertensive disorders. If that is the case, both classes of apoplexy continue to be relevant to clinicians, since they still considerably afflict our patients.

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Conflict of interests

None.

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