

Cyclic Vomiting Syndrome and Cannabis Hyperemesis Syndrome: The State of the Science
Supplemental Digital Content

English translation by James R. Lathrop, DNP, PhD of the earliest known medical description of pediatric cyclic vomiting (*Gazette_Medicale_de_Paris*, 1861; Google; Lombard, 1861; Springer, personal communication, February 2019).

MEDICAL CORRESPONDENCE.

CHILDREN'S DISEASES; notes read to the Medical Society of Geneva, by Dr. H. CL. LOMBARD (from Geneva).

I. — DESCRIPTION OF A NEUROSIS OF DIGESTION, CHARACTERIZED BY PERIODIC CRISES OF VOMITING AND A DEEP MODIFICATION OF ASSIMILATION.

Dear colleagues,

I wish to speak to you today of a disease which I do not know how to designate and on to which I come to call your attention, hoping that you will help me solve the physiological and pathological problems of this study, to which I invite you to do.

After thirty-one years of practicing medicine, I have, seven to eight times, the opportunity to meet, in children aged 5 to 12, a very singular disease, the apparent gravity of which has always given me much anxiety. Fortunately, my fears of a fatal outcome have only occurred once, but this fatal case was enough to show that my concerns were not completely unfounded.

Let us first study the symptoms of the malady that I wish to make known; we will then go to the treatment and finally to the diagnosis, to consider causes to which this morbid condition may be attributed to.

Symptoms. The characteristic feature of this disease is incessant vomiting which occurs without any determinative cause, in the middle of the best health, and by repeated spasms every quarter of an hour or every half hour. The expelled liquid is purely aqueous, with some glairy filaments, without a mixture of bile, blood, or food. The quantity becomes less and less significant as we move away from the onset, until finally after the vomiting has continued on for several hours there is only an evacuation of just a few small phlegm after great effort.

Intense thirst, retraction of the belly, considerable febrile movement and stubborn constipation accompany and follow the attacks of vomiting. Their duration is quite variable, but seldom exceeds forty-eight hours; they yield

most often within eighteen or twenty-four hours. These vomitus spasms are usually accompanied by pallor, weight loss, and facies quite similar to that observed in patients with cholera.

I could not recognize any atmospheric cause for the development of this disease that has presented itself to me in all seasons. As for the age at which it began most frequently, it is between five and seven years, and it has rarely been prolonged beyond twelve or fourteen, appearing to diminish with age and to lose in intensity what it acquires in duration; and this points out one of the most striking characters of this morbid affection: its frequent recurrences. Indeed, all the patients that I treated have presented, some weeks apart for several years; one of them, whose crises have always been very intense, continued for ten or twelve years, and even beyond, for, quite recently, at the age of eighteen, although completely free for a long time he incessantly vomited at the beginning and during the first period of a measles infection; which demonstrated to me the imprint of the disease had been deep enough for this certain disorder in his physiology to have a recurrence of symptoms which, for quite some time, were without persistence and without gravity.

This same patient presented to me another phenomenon no less remarkable, on which I desire to bring your attention. In this young man the vomiting attacks were accompanied by a very notable loss of weight; I had been in the habit of weighing him every month, so I could see his return to health, observing nutrition repair the losses of the disease. But what was very peculiar about this patient was that every time he approached a certain weight (about 25 kilograms), he had a new crisis which made him lose weight again by 2 or 3 kilograms; then he had scarcely gone up the hill, when a new invasion of vomiting made him come down again. Several times I verified this singular phenomenon and could see it reproduce identically in the same circumstances. Subsequently, after a number of years my young friend had, in a certain way, doubled the interval between the storms, and was able to resume the growth and weight that the disease had so long suppressed.

For the rest, it is not only in this case that I have observed the profound modification made to nutrition by these attacks of vomiting which I describe. Most of my patients have remained lean, pale, and defeated for a great many years, without being able to assign any other cause than the frequent repetition of crises which prevent assimilation and may compromise their existence. Two girls, whom I followed during the long years in which they suffered from these vomiting episodes, went through

very difficult times and presented all the phases of the most advanced marasmus: their anemia was pushed so far that an anasarca had invaded not only the extremities, but even the trunk and the face. And yet there was no diarrhea, nor albuminuria, nor cough, and the most scrupulous examination of all the organs could not recognize any organic lesion; which, moreover, has been satisfactorily demonstrated by the restoration of health, as soon as the attacks of vomiting had disappeared.

Pathological anatomy. The only mortal case that came to my attention is that of a girl aged 7 to 8, who had been suffering from spasmodic vomiting for several years, and that I had treated frequently during these crises. She had one during her stay in the country, and the disease could not be stopped. She succumbed despite the most varied treatments and the most assiduous of care. The autopsy showed no lesions of the gastric mucosa, which was perfectly healthy, without redness or softening, and without ulceration or erosion; the intestines, peritoneum and mesenteric glands were also found to be intact, as well as the other abdominal organs; in the end, we must recognize the disease that I now describe as vigorous but without identifiable organic cause. I insist all the more on this result due to the cadaverous examination that this young patient exhibited, yet who has succumbed as a result of a well-marked attack of the morbid affection for which I am trying to describe.

Treatment. If the therapeutic axiom is: *Naturam Morborum Ostendit Curatio** and we could throw some light on the nature of this disease, it would undoubtedly be to a great advantage; but I am afraid that the result of my research in this respect is just as unsatisfactory as that of the unremarkable anatomical investigations.

I have struggled for many years, against all odds, for the treatment of the disease which occupies us, often succeeding in stopping the vomiting, and having had no fatal accident to occur, but without ever having been able to prevent its return and therefore truly establish a rational treatment.

During the crisis I have tried almost all medications. Those that usually succeed in stopping the contractions are: The opiates, bismuth sub-nitrate, and nux-vomica, along with an ice made from milk and water, while at the same time the application of a dressing of opiate poultice to the abdominal walls.

But, in the end, what has been the most successful for me is, without a doubt, the total abstinence from either beverages or medicines. If I resisted

* Nature shows the treatment of diseases

the ardent desires of patients devoured by thirst, it is because experience has shown me that the best way to stop the vomiting is to not introduce anything into the stomach. It is true that, as soon as there is a little calm, we may first give a teaspoon of ice water at rare intervals, and then a tablespoonful; finally, when eight to twelve hours have elapsed relentlessly, we may start a chicken broth or cold milk, also by spoonful. Nothing is more important than to police these first feeding trials, because relapses easily occur under the influence of too hasty of drink or of too much food.

It is rare that in convalescence the intestinal functions are restored by themselves, and if an enema fails, then it is necessary to have remedy of some evacuator which is of the least irritating type, such as castor oil or the dried sap of manna.

Nature and designation of the disease. And now that I have brought to you these elements, describing the symptoms, the progress, and the termination of this disease, we now move on to the etiological and pathological problems.

What is this morbid condition that is characterized by periodic vomiting attacks for many years, profoundly affecting nutrition, and capable of causing death, either in an acute manner under the influence of a violent crisis of vomiting, or in a chronic manner by bringing about anemia and severe wasting?

It seems obvious to me that it is not a disease of gastric inflammation, because in that case the symptoms would be continuous, or if they took an intermittent form, they would not disappear completely and would not allow the patients to resume a certain degree of strength and weight gain in the interval between crises. Moreover, the total absence of inflammatory lesions in the autopsy mentioned above seems to me to contradict this supposition more formally.

This is certainly not what Messrs. Rilliet and Barthez have referred to as chronic catarrh of the stomach, whose mild form, according to these authors, is characterized by bloating of the abdomen with alternating diarrhea and constipation, symptoms that are absolutely missing in this disease. Furthermore, even in its severe form, fever is generally lacking, and, in the majority of the cases under my observation, while the stomach cannot support any food, digestion itself was only little disturbed during the period of the crises. Besides, what is known as the catarrhal element, with or without localization, also seemed to me to be absent from the syndrome we are discussing. I have never observed any diarrhea or bronchial complication, let alone continuous febrile movement or a persistence of the

symptoms beyond the second or third day. Fever, when present, has always ceased at the same time or soon after the vomiting period, and thus catarrhs does not seem to be a significant component of the disease that I now describe, however modified of a catarrhal form it may be.

The vomiting I speak of also cannot be better regarded as purely spasmodic; for it is not natural to suppose that a simple cramp of the gastric muscles, though frequently recurring, may bring about such a pronounced period of vomiting, and lead to such marked changes of digestive assimilation.

Is this possibly a gastralgia, a kind of stomach neuralgia that causes the symptoms we have just listed? I do not think so either, because the pain appears with the efforts of the vomiting and disappears with them, so that one cannot say anything except that the persistence of the efforts makes them painful, exactly as in any other disease which causes incessant vomiting, and besides, I have never seen them alternate with any other pain, nor present those transformations so frequent in neural or rheumatic diseases, often under the influence of seasonal changes.

What, then, ultimately is the anatomy of this nefarious condition that I have described? It seems to me to reside entirely in some essential and primitive modification of the nutritive functions, which are sometimes suspended by gastric spasms, and sometimes deeply modified by a temporary arrest of nutritive assimilation. All of this is very vague, I agree, but it seems to me difficult to specify in a more complete manner a disease which can lead to death without appreciable lesion in its sense, and which must therefore return to the class so elastic and obsessed with neuroses. So that in the end I think I have described a *neurosis of digestion*, characterized by more or less periodic crises of vomiting and by a profound modification of the digestive and assimilative forces.

To those who may consider themselves more knowledgeable and who may seek to find a better description, I would be the first to rejoice, especially if such study gives rise to some satisfactory therapeutic indication and that a new method of treatment does not simply relieve the symptoms but manages to fight victoriously over the cause of this illness itself.

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