

AN  
INAUGURAL DISSERTATION,

ON

*Simple Intermitting Fever*

SUBMITTED TO THE

PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY

OF THE

University of Nashville,

FOR THE DEGREE OF

DOCTOR OF MEDICINE.

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## Simple Intermitting Fever.

The paroxysm of an intermitting fever, consists of three distinct stages or periods, each succeeding period being the immediate consequence of the one which precedes it. Frequent yawning and stretching, a feeling of uncomfortable lassitude of the whole body, aching pains in the loins and extremities constitute the first manifestations of the approach of an intermitterent fever. A person, who is on the brink of a paroxysm of a *ague*, experiences a sensation of debility and distress about his epigastrium, becomes weak, languid, listless and unwilling to make any bodily or mental exertions. He soon feels chilly, particularly in the back, along the course of the spine, the blood deserts the superficial capillaries, he grows pale, his features shrink and his skin is rendered dry and rough, drawn up

into little prominences, such as may be produced at any time by exposure to cold. This is called, by the learned, *cutis anserina*. Presently he feels very cold, he trembles and shivers all over as though he had been subjected to intense cold, his teeth chatter, his hair bristles slightly from the constricted state of the integuments of the scalp, his lips, face, ears and nails turn blue, rings, which before fitted his fingers closely, become loose, his respiration is quick and anxious, his pulse small, contracted, frequent and firm, his urine is scanty, pale and aqueous, his bowels are often confined, his tongue is dry and white. In many instances frequent and distressing vomiting occurs, particularly about the termination of the cold stage and the ejections are generally bilious, though occasionallyropy, transparent and insipid. The thirst



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is always urgent, the mouth and fauces dry and clammy. There are cases on record, in which the cold stage commenced with violent vomiting and terminated speedily in stupor and partial insensibility. The duration of the cold stage is very various, ranging from a few minutes to four or five hours. Presently, however, it begins to abate, transient flushes of heat pass over the body, the chilliness hastily subsides, the flushes of heat become more and more frequent, until, *pari passu*, it has gained the entire ascendancy. At this time, nausea and vomiting are usually most severe, both of which often continues until the hot stage is fully developed.

The hot stage is characterised by a full and flushed countenance, an intensely hot and dry state of the surface of the body,

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great thirst and dryness of the mouth, great acuteness of the sensorial powers, a full, strong, and frequent pulse, the respiration is oppressed and more hurried than natural, though not so much so as in the preceding stage; cephalalgia, pain in the back and extremities, in some cases there is slight delirium, the urine is deep colored, scanty and without sediment. This stage is as various in its duration as the preceding one. It, however, always continues much longer than the cold stage. The temperature of the skin is always very considerably increased.

This stage is succeeded by the last or sweating stage. The skin which before was hot and harsh, now recovers its natural softness. At first, a gentle moisture is felt upon the face and arms, but presently a profuse

and universal sweat breaks forth, when the patient feels himself greatly relieved.

The thirst, which before was very urgent, now ceases, the tongue becomes moist, the urine plentiful but turbid, the pulse regains its natural force and frequency, all the restlessness and uncomfortable feelings subside, and presently the sweating also terminates, and the patient feels nearly or quite as well as ever.

This is called the stage of convalescence or apyrexia. During the intermission, the patient is entirely free from febrile phenomena, yet he cannot be regarded as, in a state of perfect health, for he usually feels some degree of languor, is easily tired, complains of a want of appetite and an indisposition to bodily or mental exertions. He is unusually sensible to the impressions of cold



air and his countenance exhibits a pale and sickly aspect. Intermittents assume various types according to the periods they occupy. A fever, which occupies twenty-four hours, from the commencement of one paroxysm to another, is said to be of the Quotidian type, whilst one which revolves every forty-eight hours, is of the Tertian type, one which occupies seventy-two, is of the Quintan type. I might mention the Quintan and Sextan, but deem it unnecessary as the three above named constitute the principal and primary types.

Each of these has its usual hour of approaching and its relative duration and violence of stages. The Quotidian comes on in the morning, has the shortest cold stage but the longest febrile excitement; it continues about eighteen hours. The Tertian makes its ap-

proch about noon, continues about twelve hours,  
The Quartan comes on in the evening, con-  
tinues rarely more than nine hours.

These are the original types, but they  
are subject to various complications. We have  
double Tertians and triple Tertians. Double  
and triple Quartans are also mentioned by  
some authors. The premonitory symptoms of  
a paroxysm are characteristic of languor  
and a dejected state of the nervous system.

There are the same sensations of exhaus-  
tion, when these symptoms are present,  
as may be produced at any time by  
fatigue. The pallor of the surface, the  
contraction of the skin and the col-  
lapse of the features, are all produced  
by the retirement of the blood from the  
superficial capillaries.



It is said that Boerhaave assembled from numerous writers, all the symptoms, which had been noticed in fever. He then subtracted from the whole number, all those which are not invariably present, retaining such only as were found by authors and his own experience to be present in all cases of fever. The consequence was that only three remained viz a sense of chilliness, in the commencement, a quick and frequent pulse, preternatural heat of the surface of the body. But says, Doctor Eberle. He might have struck from his list these symptoms, also, for it is quite certain that cases of fever do occur, in which there is, neither preternatural quickness, and frequency of the pulse, nor increased temperature of the surface of

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the body, nor is a sense of chilliness, though perhaps, the most constant of all febrile symptoms, universally present in the initial stage of fever." Thus, you see, if these statements be true, which we have no hesitancy in believing, that it is very difficult if not impossible, to give a strictly unobjectionable definition of fever, since there is not even one symptom, which is found to be invariably present and which can be considered as essentially necessary to its existence. Yet the series of phenomena, which this condition of disease exhibits, under all its forms, offers a character sufficiently clear and exact for easy recognition.

The disordered condition, of the nervous system, constitutes, the first link in the chain

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of abnormal actions, which appear in the development of fever. The languor of mind and body, the universal and unpleasant sensations, the pain in the loins, and extremities, the depression and irascibility of temper, the excitability and weakness of the intellectual powers, which generally usher in the febrile affections, afford indubitable proof of pervading derangement of the nervous system. Intermittent fever is produced and supported, by causes which create a general abnormal state of the system, without being dependant on local inflammation, or fixed irritation. The existence, of such a fever, is denied by many distinguished pathologists, who argue, that all fevers, are essentially dependant on preestablished local irritation or in-



inflammation. "Inflammation", says Doctor  
 Armstrong, "cannot exist in the cold stage  
 of fevers, all the phenomena of which  
 are directly opposed to it." The course  
 and phenomena of intermitting fevers,  
 present us with insurmountable objections  
 to this doctrine. The periodicity of these  
 fevers, proves, very clearly to our mind,  
 that they cannot depend on inflammation.  
 An inflammatory affection, which observes  
 a perfect periodicity in its attacks,  
 must be, sui generis. The nature of the  
 remedies, which have been found most  
 potent in subduing intermitting fever,  
 is contrary to the idea that gastro-ente-  
 ritis constitutes the proximate cause.  
 Who would think of prescribing Quinia,  
 Arsenic, black pepper and similar rem-

edies to cure inflammation of the mucous  
 membrane of the alimentary canal? Yet, these  
 are the very remedies, which are found to  
 be most efficacious, in the cure of inter-  
 mitting fever. Fever is a general disease,  
 The sanguiferous <sup>system</sup>, being principally and  
 prevalently disordered. In stating that fe-  
 ver is a general malady, it is not our  
 purpose to convey the idea, that every struc-  
 ture of the organization is in a state of  
 actual disease, but when we consider the  
 intimate relation which exists, between the  
 nervous, and sanguiferous, systems, both  
 in the composition and functions, of  
 every part of the body, we are very cor-  
 rectly lead to the conclusion, that if these  
 two systems, are in a diseased condition,  
 as they evidently are in fever, every other

sensible structure must suffer more or less functional derangement. A morbid derangement of the capillary functions, is indispensable in the production of fever.

An unhealthy condition of the sensibility of the heart and arteries, is also very necessary in its production, though not essentially so. For we read of cases of a very malignant character, in which there was no perceptible deviation from the normal action of the heart and arteries, yet there was indubitable manifestations of capillary derangement. I deem it unnecessary to extend my remarks on the pathology of this disease, as it has been given up by most practical writers on the subject, that in an uncomplicated case of simple Intermitting fever, there is no organic lesion,



but merely a morbid excitement of the various functions.

The causes of Intermittent fever.

Malaria is the principal cause. The medical profession, for a long time past, has had an eye single to miasmatic fever, and in latter days, chemistry and the kindred sciences, have examined matter, even down to its elementary principles, atoms, much smaller than a grain of sand, and yet science has thrown but little light on the subject of miasms, and we are left, pretty much, as the ancients, to our own observations. Malaria abounds in localities, where the soil is low, flat, humid and filled with organic matter in a state of decomposition. Dead-water lakes, mill-ponds, marshes, and all alluvial soils, much timber suffered to decay, after being killed or cut down

are supposed to be its sources. Some districts, which do not themselves, contain any of the elements of unhealthiness, and under ordinary circumstances, remain free from periodic fevers, become at times the seat of such diseases, by receiving from infected districts, through the agency of the wind, the pestiferous miasmata evolved from their marshy surfaces. Each locality has its favorable and its unfavorable winds. With the latter, fever abounds, with the former, it diminishes, or disappears, - and it is ascertained that this difference depends on the position of the marshy surface, relatively to that locality, and on the circumstance, that in the one case, those winds pass over the source of the effluvia before reaching the devoted place, while in the other, they take a contrary course. Malaria is most virulent when heavy

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rains or inundations, are succeeded by dry, hot weather, and the standing water evaporates until the mud and vegetation appear at the bottom.

The stench, at such times, on riding through low lands, (especially at night) is almost intolerable, indeed you can almost taste it. Malaria is produced by the disintegration of volcanic eruptions, or the action of heat and moisture on vegetable decomposition.

Heat and moisture are essentially necessary in the generation of this miasm.

It is not necessary that moisture be present to any considerable extent. For lands, completely covered with water, emit very little if any of this deleterious effluvia. Malaria is abundantly precipitated to the earth during the night. Hence the greater liability of contracting



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miasmatic diseases, from exposure du-  
ring the night, than after the sun is  
considerably above the horizon. The most dan-  
gerous period in the twenty-four hours,  
is, that which accompanies the setting,  
and that which immediately precedes the  
rising sun - and the least critical, is sup-  
posed to be when the sun is at the high-  
est point above the horizon. It is diffi-  
cult to ascertain the precise manner in  
which Malaria impresses the system.

But the hypothesis, which receives the  
sanction and support of the most em-  
inent physicians, of our country, is this:  
That the foul exhalations, from paludal  
soils, are received into the Lungs, and  
through that medium impart a

predisposition to the whole body. The heart, blood vessels, digestive apparatus, and the secreting and assimilating functions, being so intimately united by nervous connexions, with the Lungs, receive the impression of the febrile agent and experience the effects, which flow from that influence. This state of incubation, (as it is termed) may continue for a considerable length of time, without any perceptible deviation from health, and provided the system be guarded against the exciting cause, it may gradually abate, without producing fever. But upon the application of some exciting cause, it may be ushered in with its usual symptoms. Exposure to the sun or night air or undue indulgence of the appetite

or over- exertion, either mental or corporeal; are some of the exciting causes, which usually bring on an attack of fever. Men are more obnoxious, to this disease than women, from the reason that they are usually more exposed to the exciting causes.

Treatment. In the beginning of the chill, use warm applications, to the spine and extremities, avoiding copious draughts of cold water. Give the patient the following dose- Laudanum, from 25 to 40 minims. Spts Nitre, one Teaspoonful, Antimonial wine, Essence of Peppermint each, 10 or 15 minims, in water quantum sufficit, which will shorten the cold stage, and prove beneficial in hastening the sweating stage.



As soon as the chill is fully off, allow liberal draughts of cold water, pour freely on the head, free and frequent sponging of the whole body, and in many instances, the cold bath is not only beneficial, but grateful to the patient. In robust patients, V.S. is sometimes, (though rarely) required, which, when resorted to, may be profitably followed by an anodyne or the prescription above in perhaps lighter doses. On the decline of the fever, withhold the cold water applications, and allow palatable teas, with or without simple diaphoretics. On the intermission, the Sul. of Quinine is well worthy of confidence in doses of from 2 to 4 grains, every two or three hours, until 15 or 20 grains

have been taken, which I would prefer being taken an hour or two before the expected chill. Should the bowels be loose, combine a quarter or sixth of a grain of Morphine with the Quinine.

Camphor or Piperine is sometimes of service in combination with Quinine, in cases advanced in years or inebriates. After the prevention of the chill, an aperient or cathartic should be administered if indicated.

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Missouri

March 1867

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NASHVILLE, TENN.