HIPPOCRATES IN TEMPO ESCULAPII TABULAS VOTIVAS EXSCRIBENS.

VOL. IX.]

WEDNESDAY, SEPTEMBER 4, 1833.

[NO. 4.]

DELETERIOUS EFFECTS OF TEA AND COFFEE.

*On the Deleterious Effects produced by Drinking Tea and Coffee in Excessive Quantities.** By JOHN COLE, Esq., London, M.R.C.S. L., &c.

THOSE of my medical brethren to whom I have occasionally communicated some of the facts which I am about to submit to the Society, have not all of them been unwilling to admit the correctness of my deductions, but certainly a great many appear to be so.

The almost universal use of tea and coffee as articles of diet, is a sufficient proof that the effects which they generally produce are agreeable, and that they are not followed by any deleterious consequences which are immediately observable. Although this is, for the most part, true, the exceptions are numerous. Some years have now elapsed since my attention was first drawn to the violent effects which they occasionally produce, by several cases, occurring about the same time, which, though characterized by very different symptoms, appeared to be referable to no other adequate cause. I was thence led to inquire into the peculiar symptoms that follow the drinking of coffee, and the different kinds of tea, and the circumstances that favor the development of their deleterious effects. A succession of cases favored this object, and I found the effects of the black and green teas sufficiently distinct in many particulars, while there were others which were common to all three. As experience, however, has taught me that no practical benefit can result from entering into these minute distinctions, the same treatment being equally successful, whichever agent has produced the mischief, I shall speak only of tea.

The circumstances that seem to favor the production of the deleterious effects of tea, are all such as lower the tone of the constitution from the healthy standard, as fatigue, sickness, loss of blood, &c.

Tea seems also to have the power of reducing the constitution, when taken for a long time in excessive quantity, to that state in which it be-

* Read before the "London Medical Society," and debated April the first, 1833.

comes accessible to its deleterious influence. A longer or shorter time after taking the beverage, from a few minutes to two or three hours, an uncomfortable feeling arises in the stomach; a craving, sinking emptiness, which soon acquires a degree of intensity that is almost insupportable; the hunger-like gnawing and craving are described as to the last degree painful to bear. The stomach being full, has no effect in preventing its accession; neither does eating relieve it. This is often all that is felt for a long time; but, by degrees, a fluttering, as of a bird, in the left side, is superadded, and a feeling of fullness pervades the chest, with breathlessness, and deep and frequent sighing. The fullness is more especially felt about the clavicles and root of the neck.

When black tea, or coffee, has been taken, considerable excitement often ushers in this succession of phenomena; the face becomes flushed, the eyes sparkle with an unusual brilliance, all the earlier effects of intoxication from alcohol are observable; the pulse being full and throbbing, and considerably quickened. If green tea have been taken, the previous excitement is less, or perhaps not at all perceptible; the skin soon becomes pale, the eyes are sunken, the pulse feeble, quick, and fluttering, or slow and weak.

Whichever may have been taken, in the progress of the affection the hands and feet often become cold as marble, and bedewed with a clammy sweat. Efforts to warm them are made in vain, even in the hottest weather; a feeling of coldness and numbness also invades the back part of the head.

The symptoms here enumerated may be considered as strictly diagnostic of the affection; for, whatever others are present, the sinking empty feeling at the stomach, and the fluttering in the side, are never absent. In stating this, I am fully aware that these symptoms are considered as indicative of dyspepsia; but I am persuaded that it will almost universally be found, that it is only when tea is taken that they are felt at all; and that, if the tea be discontinued, they will speedily disappear, without the aid of medicine; while, if the use of it be persisted in, they will often resist the efficacy of the most skillful treatment.

This is the milder form of the disease (if I may so term it)—the one which is most commonly seen; but occasionally a variety of aggravated symptoms arise. To the coldness and benumbed feeling of the back of the head, there is added formication of the scalp, violent pain in the head, dimness of the sight, unsteadiness in walking, vertigo, and these are accompanied by a feeble fluttering pulse. To the feeling of fullness of the chest and about the clavicles, are added, threatening of suffocation, insensibility, and convulsions. The sufferings felt in the stomach are aggravated to violent spasm. The fluttering at the heart becomes pain, violent palpitation, or enfeebled action, bringing on syncope. I may add here, that the mind does not escape, but partakes of the disorders of the body, as is seen by the temper becoming peevish and irritable, so as to render the sufferer a torment to himself and all those about him.

Having thus given a general idea of the symptoms which indicate the injurious effects of tea, I shall now detail some cases in illustration, each one of which I wish to be considered as representing a group in which similar symptoms will be observed.

CASE I.—*Pain at Stomach, after Eating, and rejection of Food, will be found to be of rather frequent occurrence.*

A female servant, about 35 years of age, complained of pain after eating, with sinking and emptiness of the stomach, and so great a feeling of faintness that she was scarcely able to go about. After she had suffered in this way a short time, a fluttering in the left side came on, with a sense of fullness about the clavicles. She generally vomited the meal which she had lately taken. Her bowels were regular, her appetite good; she was in every other respect well. Recognising at once the effects of tea, and desirous of convincing her, as well as myself, that I was correct, I desired her to desist from taking any for the next three days, and to take milk-and-water, or weak ginger tea, in its place, prescribing no medicine. By the third day she had no remnant of her complaint.

Remarks.—This is rather an aggravated form of the affection as it appears most frequently, there being in the greater number of cases neither positive pain of the stomach nor vomiting.

When it attains that degree only, in which neither pain nor vomiting is present, the symptoms are immediately relieved by a glass of spirits, or any other active stimulus, and thus, nine times out of ten, the destructive habit of dram-drinking is acquired. There can hardly be a medical practitioner in London who has not frequently heard the exclamation, "I can't do without a glass of gin about eleven o'clock, I have such a gnawing in my stomach." If the tea had not been taken, the gin would not have been required.

CASE II.—*The Effects generally supervene on some Acute Disease, and the patient cannot always, as this one did, point out the cause.*

Mrs. R., a married woman, aged 40, without children, generally enjoying good health, although rather disposed to nervous affections, was recovering from a smart attack of catarrhal fever, when, one morning, about half an hour after taking her usual breakfast, consisting of tea and bread and butter, she was seized with a great sense of sinking and oppression at the stomach. She was seen in a quarter of an hour from the first seizure. She was tossing about, groaning loudly with every breath, occasionally rubbing her stomach with great violence, and exclaiming that she must die unless speedily relieved. There was no fullness or tenderness on pressure. She described the pain as a dull aching benumbed feel, with an extreme sense of sinking and oppression, which latter it was that alarmed her so much. There was a wild and distressed expression of countenance; the face was much flushed; the pulse was quicker and stronger than it had been in the course of her illness. Her tea (which was black) had been accidentally made stronger than usual, and she had drunk more than she was accustomed to do. The last cup was hardly swallowed before the sinking came on, and it increased in violence so rapidly, that in half an hour after drinking it her distress was extreme. A bladder of hot water to the stomach, and a draught with camphor and ether, quickly brought her relief; but her convalescence was considerably protracted by the increase of the debility attendant on her previous illness.

This was the first case that came under my notice. I was lately called to a woman, the fourth day after child-birth, affected in this way. She had imprudently taken scarcely anything but tea from the time of her delivery. Her alarm from the feeling of suffocation and sinking at the stomach was so great, that she summoned me at six o'clock in the morning.

CASE III.—*Severe Spasms of the Stomach is another form in which the deleterious effects of Tea are seen.*

An unmarried female, about 30 years of age, had for upwards of twelve months suffered from frequent attacks of spasm of the stomach; any slight exertion would suffice to bring on the attack; so that she could scarcely walk out without being seized with it. On the occasion of my being called to her, the spasm came on as she was walking along the street, so violently, that she became unable to support herself. She was taken up, and carried into the shop of a chemist, which was near at hand, where I saw her. She was suffering under the severest form of spasm of the stomach. A considerable time elapsed before she was able to swallow, but at length a tolerably large dose of laudanum and ether was got down, and she became relieved. I then inquired into the history of her complaints, from which I was led to believe that it was solely occasioned by tea. She had the sinking, craving, fluttering feelings, so often described, and the violent spasms I had witnessed, besides.

No medicine was prescribed. She left off tea; she had no return of the spasms or other feelings for some weeks, when she took a single cup of tea, and had a slight attack almost immediately afterwards. She was in the habit of using green tea, and of drinking it very strong, and a great deal of it.

CASE IV.—*The Functions of the Heart are sometimes much disturbed.*

Priscilla A., a healthy servant maid, ætat. 30, of a spare habit, suffered from a very slight attack of scarlatina simplex, which confined her to her room but two days, so that she was perfectly well in a week. About a fortnight afterwards, she complained that she could not sleep at night, for a violent pain on the inside of her arms, above the elbow, which awoke her after she had been asleep about half an hour; she also felt a tightness across the upper part of the chest, which obliged her to sit upright in bed. She was unable to go up stairs without experiencing great breathlessness and palpitation of the heart; her pulse was quick, small and feeble; her appetite and digestion good; her bowels were regular. She took digitalis and colchicum for a fortnight, without benefit, when the power of tea to affect the heart suggested itself. She was accustomed to drink very largely of green tea of unusual strength. This was now left off, and in three days she lost all complaint.

CASE V.—*The Heart was here affected with Pain, accompanied by violent action.*

A female servant, 25 years of age, in florid health, drank tea on Sunday afternoon, August 11th, at her mistress's in Covent Garden, and set off to Deptford. Having missed the coach, she walked the whole distance, five miles, with as much rapidity as she could. She found her

friends at tea, which induced her to take it again ; but she had not swallowed it long before she was seized with violent palpitation, and considerable pain in the region of the heart, with great breathlessness on the least attempt at walking. She slept very ill through the night from being unable to breathe in a horizontal position.—12th. In the morning, she came to town by the coach. When she was first seen, she walked or rather crept to my house, a distance of about eighty yards, and was so completely breathless when she came in, that it was necessary for her to sit at least ten minutes before she could speak. The pulsations of the heart were so violent as to be very visible. She complained of considerable pain from its beating, also of great fullness about the clavicles, with a feeling of suffocation. Her pulse was expanded, and beat 120 in a minute.—13th. The sense of suffocation relieved, but the palpitation and pain, and inability to exert herself, were much as before.—14th and 15th. No relief.—16th. The pains less, but the palpitation continued unabated in its violence. It was now discovered that she had continued to drink tea, night and morning, as before the attack, from some misunderstanding of the directions she had received. She was now directed to take no more, and on the 18th she was free from pain, and the heart had nearly regained its accustomed tranquillity. On the following day she was well.

CASE VI.—In which Syncope was produced by Green Tea.

Mr. M., an author by profession, very robust, and in the prime of life, suffered from an affection of the kidneys. On its being proposed that he should be cupped on the loins, he expressed a strong objection to it, stating that he was apt to faint after losing blood. However, as I thought the bleeding of importance, he complied, and about twelve ounces of blood were obtained. Not understanding why he should faint long after the abstraction of blood, I requested that I might be sent for if he should do so on the present occasion, and accordingly, in the afternoon, I was summoned. As he lived immediately opposite to me, I was with him without loss of time. I found him lying on a sofa, his lips and countenance bloodless, his skin bathed with a cold, clammy moisture, and his pulse so slow and feeble as scarcely to be felt. He was but just able to speak. A stimulant, consisting of ammonia and ether, having been administered, he gradually regained his strength, but was not himself the whole evening. He was cupped about three o'clock, and felt nothing unusual from it ; he dined as usual, and was very well till about half an hour after taking his tea, of which he drank a large quantity, made very strong, and of the green kind.

This occurred a second time on his being again cupped, with precisely similar circumstances.

It was ascertained afterwards, that he was formerly very subject to fainting, at a time when he was engaged as a parliamentary reporter, when he was up the greater part of the night, seldom getting to bed before six or seven o'clock in the morning. He used to rise about noon, and employed himself, until the time when it was required for him to go to the House, in reading and writing, with the tea apparatus constantly by his side ; and it was not unusual for him to continue drinking very

strong green tea for five or six hours together. During the time he pursued this course, it commonly happened two or three times a week that he was found in a state of insensibility on the floor.

CASE VII.—*In which sudden attacks of Insensibility occurred after drinking Black Tea.*

Mrs. T., ætat. 35, the mother of several children, had always been very healthy. On making application to me relative to her approaching confinement, she stated that she had for some time been under the care of the physicians at the dispensary, on account of fits of insensibility, to which she had been subject for some months past. The attacks had come on in the evening, and she had been attended several times by the physicians, for three and four hours at a time, before they could recover her. She had been bled in the arm and cupped repeatedly. A week rarely passed without her being so affected, and she was apprehensive of bad consequences from this complaint at her approaching confinement. I was led to believe that this affection was produced by tea, from its always attacking her in the evening, from its not yielding to the depletory plan of treatment, which would seem to be suggested by the appearances which had been usually observed to attend the effects of black tea, and from its frequent recurrence. She discontinued the use of tea, no medicine was given, and she had no return of the complaint. I should add that she had for a very long time, soon after taking tea, both morning and evening, felt the sinking and craving at the stomach, with the fluttering in the left side.

CASE VIII.—*Headache is the next affection that claims notice, according to the arrangement I have adopted.*

A man between 40 and 50 years of age, a shopman in a fruit warehouse, had been afflicted for a long time with a severe headache, for which he had been repeatedly bled, and had taken a variety of remedies prescribed by different physicians, without experiencing any relief.

The pain was almost constant, but liable to aggravation about the middle of the day, and in the evening. He had numbness at the back of the head, which extended by degrees over the whole head, with aching and throbbing, an unsteadiness on walking, a sense of sinking and emptiness at the stomach, a fluttering of the heart, and a coldness of the hands and feet at all seasons; the latter symptoms always preceding an increase of the affection of the head.

He was in the habit of drinking coffee two or three times in the course of the morning, and again in the afternoon. He was directed to discontinue the use of coffee, and in a week all the affection of the stomach and heart had ceased, and the pain in the head had become much ameliorated. Valerian was now prescribed in doses of a scruple three times a day, and in ten days he was quite recovered.

CASE IX.—*Convulsions occasionally occur.*

Mr. S., aged 22, who had enjoyed excellent health up to the present time, was seized with bleeding at the nose; it had troubled him for two or three days, and on the night previous to the attack he had lost about a pint of blood. About half an hour after breakfast, he was seized with

convulsions ; I was with him in a few minutes after the attack. The muscles of the limbs were principally affected, the face was flushed, and the pulse was full and quick. The convulsions ceased soon after the taking of a stimulant, but he remained weak through that and the following day. On the second day from the attack, he was well enough to walk a considerable distance on business. He returned from his walk just as the family had done drinking tea, and being thirsty, he drank off half a cup of tea that had been left on the table, the first he had taken since the attack. Before a quarter of an hour had well passed, he fell from his chair in convulsions, which were more violent than he had experienced in his former seizure. A repetition of the remedies before found successful soon relieved him.

The tea he had drunk before the first fit, was by accident made much stronger than usual. It was black tea. In the latter instance, a much smaller quantity was required to produce the deleterious influence. This is in perfect accordance with my every-day experience, it being almost always observed that those who have suffered from the injurious effects of tea in a severer degree, are afterwards made ill by a very small quantity.

I have at this time a lady under my care, who is a devoted slave to the teapot, and who is always suffering in a greater or less degree from the bad effects of her favorite beverage. More than once she has had severe cough and bloody expectoration, which have ceased immediately on her leaving off tea.

I abstain from giving cases of the slighter affection, of which the first case is an aggravated example, from the belief, that, after what has been said, there will be no difficulty in recognising them.

Reviewing the facts here offered, it will be seen that the stomach is the first to experience the deleterious influence, as is evidenced by the craving, sinking, empty feeling, with which it is affected ; next, the heart is felt to flutter and palpitate ; then there seems to come on a difficulty about the large bloodvessels ; a fullness is felt about the clavicles. Lastly, the influence extends to the brain, producing insensibility and convulsions ; but the heart is the organ whose functions are most constantly and most seriously disturbed.

As regards treatment, but little need be said ; it being evident, from the cases related, that the most important part of it is the abstaining from the cause. During the paroxysm, stimulants are all in all.

I could extend the number of cases, so as to form a body of evidence, whose force it would be difficult to resist. Those I have brought forward are, I think, sufficient to excite considerable doubt as to the harmless qualities of

“The cups which cheer, but not inebriate.”

If it be true, as it has been held, that the continued disturbance of the function of an organ will induce change of structure, what are we to expect from the use of tea twice a day, when it deranges the function of the heart for three or four hours after each time of its being taken ? If the answer be, that it may be expected to induce some structural disease, there arises this other question—May not the greater prevalence of cardiac disease of late years have been considerably influenced by the increased consumption of coffee and tea ?—*London Lancet*.