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DIET IN TYPHUS FEVER.

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ALL the distinguished medical men, from the remotest periods of antiquity' have been impressed with the importance of so managing the diet in fevers of all kinds, as to secure the greatest possible amount of good without producing any injury. Quite early the opinion became prevalent that, in the treatment of this numerous class of diseases, a vast amount of mischief was caused by the improper use of articles designed for nourishment. From frequently witnessing this result, some came to the conclusion, that success depended as much upon what was regarded as judicious regimen as upon medicine.

We will pass briefly in review some of the doctrines held by the ancients on this subject.

Hippocrates "On the Method of Diet in Acute Disorders," gives the foundation of all the correct rules which pertain to dietetics in the treatment of fever connected with a high grade of arterial excitement. And so much did he insist upon their strict observance, that his plan of treatment, by one (Asclepiades) has been spoken of "as merely a contemplation on death." Although abstinence was a favorite measure with the Father of medicine in commencing the treatment of what, in his day, were called *acute* fevers, he, nevertheless, says that "a diet which is a little too plentiful is much safer than that which is too sparing and thin." Celsus carried his opinions concerning the utility of regimen, perhaps, to an unwarrantable extent. In his judgment food seasonably given, according to Glass's quotation from him, is the best medicine in fever. Valentini also quotes him as saying, "*Multi magni morbi curantur abstinentia et quiete.*" Riverius was not behind his day in regard to this matter. "As for the point of nourishment," he remarks, "the diet ought to be thin and sparing in acute fevers. And therein the ancients were so severely diligent as to place the greatest part of the cure in ordering the diet." After this commendation of the plan of the ancients, he goes on to express himself in terms of censure concerning the customs of his own day: "But in our times, at least in our country, by the refractoriness of women, who fear nothing but that the sick persons shall be starved, as all their care in a manner is to cram their children with meat-like pudding bags, how empty their brains of wit, or their hearts of grace and wisdom matters not; and the indulgence of physicians, who the best of them

smell too strong of the mountebank, it is grown into a fashion in all fevers, the most violent and acute, to allow the sick at all times broths of the flesh of hens, chickens, capons, and mutton."

The eccentric Van Helmont had his own notions about diet. He remarks: "This is the truth of diet which nature doth of her own accord show and teach, and let that thing be one perpetual, that whosoever hath obtained the best remedies of secrets, and he presently restoreth the sick, so also he prescribeth no other diet for sick than for healthy folk. For to the healthy all things are accounted healthy, because the digestive ferments do powerfully draw and restrain all things into their own jurisdiction. And so doth digestion prescribe the rules of diet."

Tissot, a French author of the last century, took very strong grounds in favor of abstinence in all kinds of fevers. "The most observing persons," he says, "constantly remark that when a feverish patient sups what is commonly called some good broth, the fever gathers strength and the patient weakness. The giving of such a soup or broth, though of the freshest and soundest meat, to a man who had a high fever or putrid humors in his stomach, is to do him exactly the same service as if you had given him two or three hours later stale putrid soup." After remarking that it is a very fatal prejudice, under which some labor, of trying to keep up the patient's strength by food, he adds, "the only things which can strengthen sick persons are those which are able to weaken their disease."

In his work "On Diseases of the Army," Pringle makes some very correct remarks in relation to the utility of a nourishing diet in putrid fever. He thinks the putrid diseases, so prevalent anterior to his time, were in a great measure suppressed by the introduction of sugar into general use, which he regards as a very powerful antiseptic. Huxham was also aware of the propriety of a nourishing diet in fever of a low grade of action. He says, "Indeed, as these fevers run very often out to a great length of time, supporting drinks and diet are necessary, without which the patients certainly sink under them."

Cullen notices the prevalence at various periods of putrid fevers, but gives little or no advice in relation to the diet proper in their treatment. Thomas objects to anything in the treatment of malignant and putrid fever, that would be calculated to sustain the system, unless there should be no congestion present.

Fordyce, in his *Third Dissertation* on what he calls regular continued fever, objects to the use of animal food in all varieties of fever. A very moderate use of farinaceous vegetables is all that seems to him necessary. He says, "If in health food of easy digestion is sufficient to maintain the powers of the body, it is certainly capable of maintaining them in disease, where from the facility of its digestion a greater proportion of it will be converted into chyle than of animal food of much more difficult digestion."

Such are the opinions which, anterior to the time of Armstrong, constituted the literature of dietetics in regard to fever. Hippocrates, Celsus, Riverius, Tissot, Fordyce, Cullen and Thomas evidently inclined to the

side of a spare diet in every variety of fever. Huxham and Pringle advocated the same plan in fever of much arterial excitement; but in the treatment of the epidemic putrid fevers of their day they recommended a nourishing diet from the commencement. So far as we know, they were among the first that succeeded in drawing the attention of the profession to the importance of this useful measure.

At the time that Dr. Armstrong wrote his work on typhus, abstractions from the vital current and everything calculated to waste the energies of the patient were looked upon by a large portion of the profession as being prejudicial in fevers of a low grade of excitement. The doctrines of Pringle and Huxham were regarded as being correct, and as being confirmed by the results of practice. The ingenious author, however, to whom we have alluded, gave a very unfortunate impulse to the depleting plan of treating typhus and all its allies. Congestion in some form or other, according to him, was the cause of all the debility and prostration incident to the complaint, and as a consequence the obvious remedy, with such pathological opinions, consisted in depletion general and local. The salutary suggestions of Huxham and Pringle were disregarded, and the disease was looked upon as being entirely menable to antiphlogistic remedies.

Current as this doctrine has been in Europe and America, it is destined to take its place among the things that are obsolete. Observing men everywhere are becoming satisfied that it is wrong in theory, and wrong in practice. Since the cholera made its appearance, continued fever of every variety is most successfully treated by abstaining as much as possible from free sanguineous evacuations; and by adopting, in everything like typhus, the feeding plan of treatment. This is the testimony of those well qualified to judge, having charge of European and American hospitals; it is also the decision of the skilful part of the profession throughout the country. A question might here be started, whether or not febrile diseases have undergone any material change since the advent of the notorious and fatal pestilence to which we have alluded? As all know, such epidemics do work their impression upon, or modify in some way or other the diseases that succeed them. From the fact, nevertheless, that the correct doctrine relative to adynamic fever obtained, and was successfully tested by practice, anterior to the advent of the cholera, there is good reason for supposing that it is now what it always has been.

We have premised these remarks on the doctrines of the ancients for the purpose of more particularly adverting to the use of food in the treatment of what in our country is called *epidemic typhus fever*. Between the ancients and moderns there is no difference as it regards the propriety of abstinence, or a spare diet, in continued fever connected with a high grade of arterial excitement, formerly called acute fever. The teachings of the Father of medicine in regard to such are as valuable as any that have ever been delivered; and are as current at the present time as they were in the days in which the Coan philosopher flourished. Our object is to call the attention of the profession to the sustaining, strengthening plan

of treating all febrile disorders in which, from the beginning, there appears to be atony of the principal functions of life.

It may not be out of place here to submit some of the considerations upon which this plan is founded.

In prescribing diet for any malady it is certainly not far wrong to pay attention to some of the features of its pathology, its duration, mode of termination, &c.

In the class of disorders of which we are about to speak, viz., the putrid fever of the ancients; the hospital, jail or camp fever of Pringle; the nervous fever of Huxham; the typhus of Armstrong; the adynamic gastro-enteritis of Broussais; the typhoid of Louis and Chomel; the follicular enteritis of Andral; the dothineritis of Bretonneau, and the epidemic or winter typhus of American writers, there is, among other things, a well-marked tendency in the system to debility, marasmus, and disorganization of the tissues. The debility is seen in the general prostration, the weakened action of the heart, the impaired condition of innervation and in the diminished amount of the secretions. Rapid wasting of the tissues is a very conspicuous phenomenon from the commencement. As is well known, this morbid action extends to every organ and tissue of the system, unless the gelatinous and osseous be exempt, and these certainly are found less altered after an attack of typhus than other parts. By far the greatest change is witnessed in the muscular tissue, and in the adipose deposit. Here from the first onset the phenomena of emaciation are conspicuous, and often continue until the patient is reduced to the condition of a skeleton. More or less disorganization denoting the weakness of the vital force, is present in every case of anything like an aggravated character. Hemorrhage beneath the cuticle (*petechiæ*), from the gums, alimentary canal, or the air passages, is of common occurrence. Vitality in certain parts of the body at times becomes extinguished, and pieces of flesh mortify, drop out, and thus give rise to ulcers. Besides the alterations in the solids, the blood in disorders of this class is diminished in quantity and depraved in quality. It contains, according to Andral, no spontaneously coagulable matter, is deficient in fibrin and globulin, and presents on inspection a dissolved, putrid appearance.

An enlightened system of dietetics, we think, should take into consideration the *duration* of the malady. In fevers that run their course in a short time the importance of this remark is not so obvious, as in those that are very protracted. As a general rule, the malady before us lasts from seven to twenty-eight days. Prevailing, however, in the form of an epidemic, it has a certain cycle of changes through which it will run, and from which it cannot be moved, that in a majority of cases have something like a fixed duration. Very often this exceeds the time at which, in health, without food, starvation would occur. This event we know depends to some extent on the amount of fat in the body, the presence or absence of water, and the degree of motion, voluntary and involuntary, to which the system is subjected. In the complaint under consideration there is reason to believe that it would take place much earlier than in health. The functions of respiration and circulation are increased so

much in activity, that there is more oxygen admitted into and transmitted through the system, than in health. This never passes out of the system unchanged; hence the secondary or destructive assimilation, the process of waste, is augmented, as is seen in the rapid emaciation, to furnish the materials with which the oxygen is found combined in the various excretions. Attended, therefore, with such circumstances, there is certainly propriety in carefully noticing the duration of the affection, in order that a kind of food may be provided sufficiently nourishing to sustain the patient until the disease has run its course.

Another view may be taken that seems, in our estimation, to make a timely and judicious administration of nourishing substances proper. We allude to the agency of food in obviating *complications*. All know that inflammations, complicating disease, arise in very opposite conditions of the system. We find them occurring with as much facility in typhus, as in synochus; and it would perhaps be safe to remark, that the more a patient is debilitated the more danger he is in from complications of an inflammatory nature. If this position be correct, things having a tendency to keep the system from sinking into a state of prostration, and the avoidance of whatever is calculated to waste the strength of the patient, merit some attention as the means of averting what, oftener probably than the disease itself, causes a fatal issue.

From such views the sustaining plan of treatment seems most entitled to confidence; but some things, it must be remembered, look plausible in theory which in practice are found to be defective; we do not believe, however, that this is the case in the matter under consideration. Better success will be found to attend the course just mentioned than has attended any other to which the malady has, as yet, been submitted. We shall now proceed to a brief detail of the means proper for carrying this plan into execution.

In making a selection of food it should be recollected that the indications will be best fulfilled by articles digestible, containing a large proportion of nutritious matter, the elements of respiration, and, as far as practicable, those most adequate to exercise an antiseptic influence. As has previously been shown, animal matter contains the greatest proportion of nutritious principles, is least combined with adventitious substances, is as readily assimilated as other kinds of food, and has a composition identical with blood. Possessed of such qualities, it must undoubtedly take the first rank as an available agent in the process of nutrition. In the preparation of the food, of course it should be reduced as nearly as possible to the fluid form. Tea, made from the fleshy parts of mutton, beef, or from fowls, answers a very good purpose. Analogous to these, and perhaps equally valuable, are eggs slightly cooked, and milk; the former composed principally of albumen, and the latter rich in casein—elements which have, like the fibrin of flesh, a composition identical with blood.—Besides articles designed for nutrition proper, we want also those which are considered *elements of respiration*. The condition, as we have seen, of the respiratory function is such, that an abnormal proportion of oxygen is introduced into the system, which by combining with the tissues,

there is very good reason to believe, is the principal cause of marasmus. Something, therefore, containing carbon and hydrogen in proportions sufficient to unite with the oxygen of the inspired air, that it may be prevented from acting on the tissues, is what seems, if this view of the matter is correct, to be what is indicated. Vegetables, although not so nourishing as animal food, contain the materials to which we have alluded, in great abundance. Those to be preferred are the amylaceous, found in great abundance in wheaten flour, sago, tapioca, arrow-root, potatoes, &c. The "*cream of ptisan*" of Hippocrates, made from barley by boiling it to the consistence of cream, and straining it, is, we suppose, as valuable a preparation of vegetable food as any of modern origin. In having it prepared, this author had his *thin*, *exactly thin*, and *extremely thin*, just as it seemed to be required.

With respect to the articles best calculated to exercise a direct antiseptic effect, in order to oppose, as much as possible, the tendency to a diminished cohesion of the solids and fluids, we can say but little. Pringle, as we have seen, ascribes the decline, in his day, of putrid diseases, such as scurvy, leprosy, dysentery, plague, and pestilential fevers, to the introduction of sugar, beer and various liquors into general use. It is known, nevertheless, that saccharine articles are very liable to produce flatulence, acidity, and other troublesome symptoms in the alimentary canal. In favor of the utility of beer, and several kinds of wine, there is some testimony; but on considering the ambiguous character of any agent in fulfilling the indication before us, it may be concluded that as much can be done to resist the septic tendency by keeping the nutritive process in vigorous action as in any other way.—*Western Medical Journal*.

A CASE OF TETANUS TREATED BY CANNABIS INDICA.

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CYRUS SASSAMAN, aged 16 years, in the act of quarrying stones received a contusion on his left index finger, which lacerated the skin and muscles of the second and third phalanges. The wound was immediately brought together with strips of adhesive plaster, and on removing the dressing the tenth day it was found completely healed. In three or four days afterwards he began to feel a stiffness in his jaws, and a drawing pain in his neck and shoulders. These symptoms went on increasing about forty-eight hours, when, on the 22d of April, 1846, in the afternoon, he applied to me for advice. He could not, at this time, separate his teeth more than three fourths of an inch; complained of rigidity and pain in the muscles of the neck and shoulders, which occasionally extended down the back; had, also, considerable difficulty in swallowing. I immediately laid open the wound, applied caustic to it, and directed a lye poultice to the part. As the patient had been costive for several days, I prescribed an active purge in the form of powder to be taken at bed-time.

Having been called some distance from home to an urgent case, I did