

AN
INAUGURAL DISSERTATION

ON
Enteric Fever,

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Enteric Fever.

The fatality with which this disease is attended, its frequent occurrence, and the wide expanse of country infested with it, makes it one of vast importance; and one that should excite the deepest interest in the medical world.

This Fever was called by the French—who discovered it—enteromesenteric, from the seat of the disease, as they thought. Bretonneau used the term dothinenteritis, as being expressive of the eruptive character of the intestinal affection, which distinguishes it. Follicular enteritis had the same origin. These terms are objectionable from the fact that they consider as essentially the disease what is only an attendant, though a very common one.

The term typhus milium would lead us

to infer that it was only a milder form of true malignant typhus. Although the disease under consideration bears a general resemblance to typhus, yet there are marked pathological distinctions, existing especially in the glands of Peyer, and the two affections are entirely distinct. Common continued fever is not sufficiently significant, as other fevers equally common in some localities, are equally continued.

The common appellation typhoid is objectionable upon the score, that it is a mere epithet applicable to a common condition of disease, appropriated to a distinct complaint, and must inevitably lead to frequent misconceptions.

Nervous Fever is less inappropriate from the fact that the disease is preeminently marked by nervous disorder; but we may

say without qualification, that all fevers are in some degree attended with nervous disorder. Drs Drake and Smith, of our own country used the term typhous.

Enteric has the advantage over them all only of simplicity.

Symptoms, Course &c

Most frequently this disease comes on slowly, and increases gradually, so that it is almost impossible to fix the precise point of commencement. But occasionally (Chomel said most frequently) the invasion of the disease is sudden, and without any preliminaries whatever. The poison in the blood & for it evidently exist there—disturb the functions of animal life before it causes any palpable derangement in the mechanism of the circulation; consequent by the insidious mode of attack.

And the premonitory symptoms seem to result from an altered condition of the nervous system. Muscular debility as a general thing is the most prominent of these symptoms. The patient complains of numbness of the limbs, and feels wearied & uncomfortable; with occasional flushes of heat and cold; pulse somewhat accelerated, tongue slightly coated with a whitish fur. There may be slight febrile action and an indisposition to food, his acquaintances judge him unwell from the altered aspect of countenance. A disposition to diarrhoea not unfrequently occurs, there is at least an extraordinary susceptibility to the action of cathartic medicines; a little head-ache almost invariably present during these preliminary symptoms. In a word, he goes ^{ro} moping or drooping about?

This condition of symptoms may exist for a week or even longer, before the patient is forced to take to his bed by the occurrence of a chill, which may be repeated for several days, with slight reaction, some sweat, but no complete intermission. At this period it is often confounded with the ordinary intermittent fever.

The disease being now fully established it exhibits the ordinary phenomena of fever, such as, frequency of pulse, hot skin, head-ache, flushed face, thirst, loss of appetite, and great debility.

Usually the pulse is not so much accelerated as in other febrile actions, it generally ranges, in the vigorous constitution, from 90 to 100, in the minute, and very full, while in females, young persons, and irritable constitutions, it may be small, compressible,

and as high as 120. Should the pulse in any instance reach 130 or 140, per minute, the disease is severe, and the majority of such cases die. Not unfrequently there is a dusky hue of the complexion instead of the flushed face. Head ache still persists, with loss of strength and great prostration which occur early in the disease.

Epistaxis is a characteristic symptom in this affection often, though generally so slight as to be of little importance other than as a sign. Another important symptom which frequently sets in with the fever is diarrhoea; it is attended perhaps with pain or uneasiness or uneasiness in the abdomen.

These symptoms continue with little other change than a gradual increase of intensity for several days.

7

The pulse slightly accelerates, but are not so full; "the skin feels to a bystander hot and pungent": the aspect of the patient is peculiar, and duski-ness of complexion deepens; transient pains are felt in the abdomen, and uneasiness manifested when pressure is made over the right iliac region, flatulence and tympanites, with a gurgling movement palpable to the hand upon pressure over the caecal region.

There is some notable quickness of respiration, and some diffused rhorchus audible through the stethoscope. Urine scanty, high colored, & offensive.

If the patient be spoken to briskly, he responds, and although his sensibility seems blunted, his answers are, as yet, rational and to the purpose. The muscular power is greatly depressed, the patient lies on

his back motionless; he sleeps but little, waking often, perhaps he may complain that he does not sleep enough.

It is seldom that death takes place during the primary stage of uncomplicated Enteric fever, which lasts until about the seventh day.

Usually about this time other symptoms are developed. Deglutition seems to be difficult, and the tongue assumes a deep brownish hue, with fissures. About the 4th or 5th day the tongue is elongated, pointed, red at the tip and edges, & covered with a white fur which now changes to the brown.

Finally this coating comes off in flakes, leaving the surface of the tongue red, smooth and glossy. It may return and go through the same process a second time. This coat adheres with great tenacity until the period for exfoliation.

9

The abdomen is obviously tympanitic, presenting a convexity from the ensiform cartilage to the pubes; this is almost a constant-attendant of enteric fever, usually appearing about the seventh day, and sometimes distending the abdomen enormously; chiefly from a morbid collection of air in the colon.

One of the most characteristic phenomena that appear in this fever is the rose-colored eruption, occurring about the tenth or twelfth day over the abdomen and extending over the breast. The character of the eruption is papular, and the spots may be a line in diameter, elliptical, elevated, and a few in number, rarely exceeding thirty; though in some instances they may be very numerous.

Sudamina are the small vesicles

about the size of the head of a pin containing a transparent fluid, that appear about the neck, and a little later than the red spots.

About the ninth day the nervous symptoms are most prominent, Head-ache has already been mentioned as being very seldom entirely wanting; the patient becomes dull and stupid, which gives way to delirium. There may be violent raving, but ordinarily it is of a low muttering character, as it most generally is in the latter stages. Strange as it may seem, he almost invariably imagines himself from home. There is also a slight perversion of vision and hearing.

Finally if the case is to terminate fatally, dark sordes collect,

upon the teeth, gums, and lips, the surface is hot in some parts, while it is cool with a clammy sweat in others, *Subsultus tendinum*, A tendency to slip down in the bed, catching at imaginary things, involuntary fecal evacuations retention of urine, with its evil consequences, hemorrhage from the bowels, pulse becomes exceedingly feeble and life is quietly and almost insensibly extinguished.

When the disorder is about to terminate favourably the amendment in many instances is so gradual that we can scarcely say when it begins.

The more formidable of the symptoms diminish and abate. The patient begins again to notice things around and to attend to questions

that are put to him, the air of stupor that had hung over his countenance clears away, the temperature of the skin becomes more natural, the tongue instead of being dry and cracked, becomes moist and gradually clears itself, commencing at the tip and edges. Evacuations from the bowels are attended to, it seems that the extent of the emaciation is just made evident, the parotid glands seem to become enlarged, &c Under these circumstances convalescence takes place rapidly.

This disease is usually protracted, the average duration being from twenty to twenty five days. Although the patient may die as early as the sixth or seventh day, yet he may linger six weeks or even longer,

There are some varieties and complications, but the description above given will enable us to diagnose almost every case.

Post Mortem Appearances

The vestiges of this disease are made much more manifest in the abdomen than in either the thorax or cranium. But we may say that there is scarcely an organ in the body that does not at some time present traces of inflammation, for it is one of the peculiarities of the febrile movement, to develop local disease of an inflammatory character, yet there are some of these anatomical changes that are regarded as especially characteristic of Enteric fever, such as the affection of both the agminated and solitary mucous follicles denominated the glands of Peyer.

It is in fact, and should be regarded

as a post-mortem test. Some writers seem to think that the ulceration of these glands is essential to the existence of the fever. It would be about as plausible to suppose that enlargement of the spleen occasioned ordinary intermittent fever, the ulceration is due to the impurity of the blood, the numerous lesions occasioned by the physiological action of these glands—as they are endowed with no ducts to convey their secretion—cannot, from the diminished quantity of the healing properties of the blood, be restored as nature requires. These lesions although very small are constantly going on, consequently the ulceration continues to increase. It seems from the action of turpentine that the fever is dependant upon the affection of

these glands, and by healing the ulceration removes the exciting cause and therefore cures the fever. But this is not sufficient proof; for if the fever was at all owing to the morbid condition of these glands, they must of necessity be in a pathological condition from the beginning, which does not occur until several days have elapsed from the onset of the fever. The inflammation for such it may be called - of the mesenteric glands is sympathetic or secondary, depending upon that of the mucous follicles, bearing the same relation that a bubo in the groin, does to a chancre on the penis. This ulceration is worse in the lower end of the ilium where these glands are most numerous,

Perforation is a serious consequent of this ulceration which almost always terminates in death. These glands after becoming ulcerated, are considerably enlarged and much more perceptible than when in their natural state.

Other portions of the alimentary canal, such as the parynx and oesopagus are sometimes slightly affected.

The colon is almost always distended with air, and sometimes to a very great extent. The stomach and duodenum are in the majority of cases quite natural. The spleen is in some instances four or five times its natural size, and very much softened. This cannot be due to inflammation because the peritoneal covering presents no traces of inflammatory action,

The Liver, kidneys, and heart, are generally only somewhat softened; the inner coat of the aorta is reddened; The organs of respiration are but little altered.

Contrary to what the symptoms would indicate, the brain is scarcely ever affected

Causes —

Many circumstances have been alleged as being causes of this fever, but relative to the real circumstances of its production we know but little. Some writers have endeavored, by bringing forward, a great number of instances to prove its contagious, - while upon the other hand, doubtless a greater number could have been adduced from the same case to prove the opposite. It is not contagious

It prevails both epidemically and sporadically. It may go through a whole family, a part of a family, or there may be but a single case, while the attendants are liable to it.

Almost every clime is subject to its ravages. The opulent, as well as the poor; often selecting the fairest of Gods creation. It is very probable that it may originate where human beings are crowded together with insufficient or unwholesome food, and vitiated air. But upon our mountain tops, where nothing ~~but~~ the purest air upon earth is breathed, it may originate. The greatest liability is in those from 10 to 40 years of age, And fortunately it occurs but once ~~in~~ the same person

It may prevail at any time, but occurs most frequently in the fall.

Of the real nature of this affection as that of all the essential fevers, we know nothing.

Diagnosis

The principal characteristic symptoms of this disease, are, the insidious mode of attack, cephalalgia, heavy expression of countenance, dusky hue of complexion, diarrhoea, cough, tendency to sloughs or eschars, fuliginous character of the mouth, meteorism, and we may say gouth. This fever is not, unfrequently confounded with the remittent or bilious fever; but if we will but notice the regular and decided remissions, the bilious vomiting and the intermittent tendency of the latter,

One may readily distinguish it from the diarrhoea, dingy complexion, stupor, rose-spots, and epistaxis of the former.

Prognosis

The prognosis should be always very cautious. No case should be regarded as absolutely free from danger, and none, however low, that death should be considered as inevitable.

Treatment

Great diversity of opinion exist even at this day relative to the treatment of this fever. Some stubborn practitioners, knowing men, are still holding on to the old remedies, regardless of the fatality, probably, because their forefathers used them, who treated the disease actively, according to their adopted mode of treating all febrile actions,

with venesection, pukes, purges &c and not according to the pathology of the disease.

All active treatment is undoubtedly incompatible.

As the disease is self-limited, it would be folly to attempt to cut it short,

Our whole plan of treatment should be negative and defensive, interfering as little as possible, for it has a strong natural tendency to terminate in health.

Bleeding is objectionable from the fact that the fever is naturally adynamic in its type. Active purging will but irritate the already excited mucous membrane of the bowels. No benefit can be derived from emetics. But the principal point of our treatment and one that should be strictly observed is cleanliness and good nursing.

The patient should be placed in a comfortable room, well ventilated, void of surplus tapestry and removed from all annoyances. As before stated, a nurse should be in constant attendance; a change of clothing every day or two, and the patient frequently sponged all over with cold water. He should then be placed upon turpentine, in doses of 1 to 2 qts. omni. hor., which should be continued throughout the disease. It may be beneficial to combine it with a thick mucilage of Gum Arā and compi Spts Sav. The Modus Operandi of this medicinal agent is not easily explained, although it seems to be almost a specific. Of course it will not cut the

disease short, as it is self-limited, but a large majority of cases will ultimately recover if the remedy is properly administered. This remedy should be continued until all febrile symptoms have subsided.

Should bleeding at the nose become troublesome and persistent we should use the cigar shaped tampon. Hemorrhage from the bowels may be arrested by cold water injections, if this does not check it an injection of *Acetas Plumbi*, laudanum and starch water probably will.

Mercurials should be rejected in all cases, doubtless a degree of the fatality is owing to this practice. If an evacuation is necessary we may use oil in combination with turpentine,

Frequent sponging should be kept up.

Stimulants are essentially necessary in the latter stages of this fever.

Cordials, pure wines, wine whey &c

Tinc Cinchona is excellent also, it may be combined with Aromatic Sulphuric acid in the proportion of ʒiʒ to the tea spoonfull, given tunc, bii.

Life may be sustained, even after the patient has become so low that the act of deglutition cannot be performed, by injecting nutriment into the bowels. He should never be given up as long as life last.

It may be well to use some refrigerant diaphoretic throughout the disease.

Various other remedies, such as, mild laxatives, opiates, slight nauseant, and a host of others may sometimes be used with good effect. The patient should be

permitted to use lemon water, cooling draughts and such like throughout the whole course of the fever.

We should be very careful that we do not do too much

It might be inferred from our treatment, we are an advocate for doing almost nothing in this disease, yet it is doing a great deal,

Thousands of remedies might be mentioned as having been used in this fever. Some with good effect other with almost no effect, and a great many with evil. But only do as we have directed, and a large majority of cases will recover,

