

AN

INAUGURAL DISSERTATION,

ON

Typhoid Fever

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Typhoid Fever

This is a complex and in many respects an obscure disease. Its diagnosis is in most cases easily and positively made out. It attacks some persons more suddenly and violently than it does others. It generally comes on slowly, so much so that the patient cannot date the day on which his fever began. He will be apt to say that for several days past he has not enjoyed his usual degree of health. There is generally a loss of appetite, and moderate thirst, with a dry or clammy state of the mouth. Generally has headache or pain in the back and limbs, with a general feeling of soreness or of fatigue. There is a bodily languor and indisposition or inability to perform his usual labor either of body or mind. The countenance

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assumes a different expression, sometimes
becomes listless and dull the eye loses its
animation and the mind is either indiffer-
ent or apprehensive. There are generally pains
in the abdomen attended with moderate diar-
-rhoea. This state of health may continue
for a week or ten days or perhaps longer
with but slight changes from day to
day; Oftentimes there is a slow but steady
increase in these morbid symptoms while
others more prominent in character arise
day by day by which we are enabled to distin-
guish this disease most accurately from oth-
ers. Sometimes after an indefinite continu-
ance of this precursory period there is a sud-
den ushering in of the most violent symp-
toms. But whatever be the manner of
attack whether this be slow and obscure

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marked by no obvious and prominent symptoms or on the contrary sudden and violent. in either case the disease goes on for a considerable period of time varying of course according to its severity and its favorable or fatal termination. During which progress it is characterized by a greater number and variety of symptoms in themselves, in their combinations and their successive appearance. peculiar to this fever than are to be found in any other form of acute disease. I now proceed to describe these symptoms as fully as the present state of my knowledge will enable me to do. Like other acute diseases typhoid fever is generally attended with chills, and in the first stages more properly with chilly sensation. The patient may

have these chills and

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have these chilly sensations for a week or more followed by slight fever or perhaps he may have chilly and hot sensations alternately. Then he may have a decided chill for several successive days, in the mean time the febrile exacerbation increasing successively after each chill. This heat varies very much in different respects. In some patients it is uniformly diffused over the whole body. In others it is not unfrequently very unequally distributed. Sometimes the head and body will be extremely hot while the extremities are cooler than natural at others the extremities will be hot and the body cold. The state of the skin in regard to dryness and moisture is quite different in different patients. In severe cases the skin is generally dry through the

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whole course of the disease. In some few there may be more or less moisture. In some cases the moisture or sweat is confined to portions of the body only, in others it extends over the whole surface. After recovery when the case has been of considerable severity the cuticle often peels off in large flakes from the palms of the hands and soles of the feet. The hair also frequently falls off from the head and is succeeded by a new growth.

The circulation is generally accelerated. As a general rule, the frequency of the pulse is in proportion to the severity and danger of the disease. The pulse is more frequent in females than in males. From the observations of some the least medium of the pulse is 85 and the greatest medium is 130. The pulse sometimes in severe cases runs

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to 150 in a minute. Sometimes especially in mild cases where the circulation is only moderately accelerated the pulse preserves its natural softness and volume. This is not the case where it is very frequent. Sometimes the pulse is compressible and undulating.

The most common alteration of the breathing consists simply in the usual acceleration which accompanies febrile excitement. Under certain circumstances however there is a more marked and peculiar change in the breathing. In high grades of the disease and particularly in its later stages accompanied invariably or nearly so by delirium or stupor the respiration becomes irregular noisy and hissing. It is thought by writers that this irregular noisy and sibilant res-

piration is not dependent in any degree upon any disease of the lungs. It is manifestly connected with and dependent upon a morbid condition of the brain. Positive dyspnea is very uncommon. It may occur where there is extensive secondary disease of the lungs and sometimes it is occasioned by excessive tympanitic distension of the abdominal parietes. This disease in a majority of cases is attended with a cough. This is generally slight and hardly ever attracts the attention of physician or patient. The sputa are usually small in quantity sometimes tenacious and colored sometimes of a rust color from a complication of pneumonitis. sometimes bloody from mixture with the blood from the nares. There is generally a sonorous rhus-
-chus ^{to be heard} over the chest when you apply your

~~un. In many of~~

ear. In many of the severe and fatal cases there is some dullness on percussion over the most dependent portion of the chest. There is one prominent symptom found on good authority though not to be found recorded in the books, that is a tendency to inflammation of the parotid gland, sometimes it goes on to suppuration. When this gland is affected in this manner there is not that disposition to spitting in convalescence which is so frequently the case when this gland is not affected.

Cerebro spinal symptoms. Pain in the head is amongst the most constant symptoms of this disease. In many cases it is the first thing which arrests the attention of the patient and marks the formal accep

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of the fever. It is seldom intense in the first stages. Generally occurs most frequently on rising from bed in the morning sometimes does not come on until the third or fourth day. Generally is continuous and increased on the exacerbation of the fever. Most frequently it is dull heavy and throbbing. In some cases it is intense and acute causing great distress. In combination with these symptoms there is sometimes great pains in the back and extremities. The pains generally are greater in the legs than in the arms. These pains for the most part disappear when convalescence sets in and some of them sometimes previous to that time. I have already ^{in part} spoken of mental languor and inability in giving the first symptoms of this disease. He cannot confine his mind to

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a regular train of thought. Becomes list-
-less and dull and sometimes impatient and
-irritable or perhaps timid and apprehen-
-sive of the approaching danger of the
disease. His mind becomes weak forget-
ful of things that have past and that
are passing about him. This condition of
the mind generally continues throughout
the whole course of the disease until the
period of convalescence or in the severe
cases it may terminate in delirium
or coma. Delirium is a concomitant
of Typhoid fever especially the severe cases
and its degree is in proportion to the gravity
of the case. In cases that terminate fatally
when delirium once comes on it hardly ever
disappears till it is lost either in coma or
death. Its subsidence is one of the earliest

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and surest signs of convalescence, Delirium generally makes its first appearance at night or during the febrile paroxysm, or perhaps immediately after waking. Under these circumstances by calling his attention he may talk sensible but as soon as he is left to himself his mind at once lapses into its disturbed and irregular action. Delirium is attended with wild and violent agitation in many cases of rapid march and great severity. He becomes restless in bed picking at the bed clothes or any thing he can get hold of, wants to get up and put on his shoes and walk. Sometimes in the midst of the most dangerous symptoms the patient will declare that he is perfectly well, insensible to all pain. This is the worst symptom, few ever recover under these symptoms,

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The restoration of the healthy action of the mind on recovery is more or less gradual but nearly always complete. Some writers state that the moral principle in some cases is somewhat affected after recovery.

The expression of the countenance is peculiarly changed. The eye becomes heavy and languid. If there is much suffering either from pain or the indefinite and indescribable restlessness of fever the usual heavy and stupid expression of the countenance is mixed with or supplanted by one of sadness anxiety and distress. There is generally a great disposition to sleep. Sometimes an opposite state exists. In fatal cases it generally persists and increases after its first appearance unless when interrupted by violent delirium until it ends in complete coma or is lost in death.

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The patient when first attacked generally has dizziness of sight perhaps before he has taken his bed and subsequently especially on his rising from the recumbent position. There are frequently in the first and middle stages a buzzing or ringing sound in the ears. Sometimes false hearing occurs the patient imagines he hears sounds and voices when nothing of the kind exists. The sense of taste is either dull or perverted. He will take medicines with the least repugnance which would be disgusting to him if well.

One of the most constant and certain phenomena of typhoid fever is prostration of the muscular strength. In some cases this is extreme in others but slight especially in the first stages.

A slight return of the muscular strength is one of the most certain ~~and~~ ~~surest~~ signs of convalescence.

The tongue in the course of five or six days takes on a white or yellowish coat. Then turns brown or black in its centre and the edges red and becomes dry. In other cases it becomes black over its whole surface sometimes glazed, stiff and crossed by cracks and fissures. Sometimes this dark dry crust peels off in flakes or patches leaving the mucous membrane naked red and shining. This process of coating and cleaning off may be repeated several times in the course of a severe and protracted case. The tongue becomes narrow and lengthens out. Sometimes it is with difficulty that the patient can protrude the

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Tongue, and when he does protrude it in some cases it appears to be tremulous ^{and he} cannot hold it still. The patient has little or no appetite from the beginning to the period of convalescence. The thirst in most cases is in proportion to the degree of febrile excitement. There are generally more or less gastric symptoms in every case. The patient generally has nausea in the first stages and later in the progress of the disease vomiting. Pain or distress in the region of the stomach varying in character and distress is nearly always present. Amongst the most frequent symptoms of this disease is diarrhoea, and when taken in connection with other symptoms one of the most characteristic. This symptom varies much in different

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cases. As a general rule it is most common
and severe in long continued and grave cases
and least so in mild cases. The patient may
have from two or three discharges to twenty or
more in the course of twenty four hours.

There may be some mild cases where the disposi-
tion to diarrhoea is very slight and when pre-
sent very mild in its form and of short du-
ration. The stools are generally watery
and of a yellowish cider color. Sometimes they
are of a dark brown color and generally very
offensive. Sometimes free and frequent hemo-
rrhages take place from the bowels.

With but few exceptions there is always
pain in some portion of the abdomen.

These pains are in proportion to the sev-
erity of the disease and extent of the diarrhoea.
In some cases it is only evinced by pressure

in others it is independent of this. It varies in gravity from a heavy dull ache to a severe colicky griping. Its most frequent seat is in the iliac fossae the hypogastrium and around the umbilicus.

Flatulent distension of the abdominal pariete is a very common symptom of this disease.

Its degree and frequency like diarrhoea and abdominal pains with which it is often associated are for the most part in proportion to the gravity of the disease.

It frequently distends the bowels so that they press upward the diaphragm thereby intruding upon the thorax disturbing the action of the heart and lungs sometimes bringing on dyspnoea. When the bowels are distended in this manner if we produce pressure on the abdomen and especially over the region of the caecum

there will be a gurgling sound given out
 There is frequently hemorrhage from the
 mucous membrane of the nostrils in this dis-
 ease. There is generally a peculiar eruption
 of the skin in this disease. It consists of a
 small spot about the size of a pinhead
 a little elevated above the surrounding skin
 and of a bright red or rose color. These spots
 varies in number generally from one to
 twenty or more. They generally occur up
 on the chest and abdomen. Sometimes but
 rarely upon the extremities. There is some-
 times another eruption, consisting in transpa-
 rent cells, varying in size from that of a pin
 head to the size of a split pea. They are formed
 by the presence of a limpid fluid elevating
 the cuticle. Their most frequent seat is upon
 the neck and on the shoulders, but rarely ^{on other portions} the skin

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Anatomical Lesions. The heart undergoes a material change in this disease. It becomes soft pulpy and flaccid and is easily torn and broken down. Its color changes becomes of a pale or violet red, and the walls of its ventricles are generally thinner than they are in health. The aorta is also affected its internal membrane becoming red. When these lesions occur there are lots of non-fibrinous blood found in the cavities of the heart and in the aorta.

The most frequent alteration in the character of the blood is a diminution of its natural proportion of fibrin. Blood drawn from the veins in this disease rarely exhibits the buffy coat.

The lungs undergo no material change only that their structure may become tough and cells ^{kerata} obliterated.

From the frequency and severity of the symptoms arising from deranged action of the brain it would have been thought as a matter of a priori reasoning that this organ would have shown corresponding changes in its appearance. But writers inform us that lesions of the brain are far from being always present and when present are far from being severe in proportion to the disturbed functions of this organ during life. The most common changes consist in an effusion of serum between the arachnoid and pia mater more or less vascularity of the pia mater its self, a red tinge of the cortical substance and injection of the medullary portion of the brain. The only lesions of the Pharynx and Oesophagus is ulceration of their mucous lining. The mucous membrane of the stomach

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is generally more or less affected. The most common consists in change of its color its consistence its thickness and ulceration.

The most common change of color consists of increased redness. Softening of the mucous membrane exists.

In all cases of typhoid fever there is lesions of the small intestines. It is found in no other disease. These lesions consist in alterations of Peyer's glands.

In some cases the glands together with the subjacent cellular tissue, are merely increased in thickness with redness and softening.

These glands are elevated one or two lines above the surrounding mucous membrane. These lesions are generally found at the lower extremity of the ileum. Sometimes these plates instead of being merely thickened take on ulceration.

The bottoms of the ulcerations varies. They consist sometimes of the cellular tissue: just under the mucous membrane sometimes of the muscular coat and sometimes of the peritoneal covering. Occasionally this covering gives way perforation takes place and the contents of the intestine are discharged into the cavity of the peritoneum.

Ulcerations are sometimes found in the large intestines. The lymphatic glands are generally affected, sometimes enlarged softened and reddened.

The spleen is almost always more or less altered in appearance. The most constant change is enlargement of its size.

The only alteration of any considerable frequency in the liver consists of softening.

The Pancreas, Salivary glands, Urinary apparatus, and Sexual organs are for the most part found in a healthy state.

Treatment? When the patient is first taken he should be put in bed and kept comfortable. His bed should be placed in a large room and it should be well ventilated. The bed should be placed in the centre of the room, and the light should be occluded by curtains hung over the windows but not so as to prevent a free access of fresh air. Every thing should be kept neat and clean in the room and no more attendants should be admitted than sufficient to wait upon him.

If in warm weather the floor should not be carpeted and it should be sprinkled every day with water. It appears of all diseases that medicines in this does the least good. The best treatment is good nursing. When the patient is first attacked we should withdraw

all food or at least his food should be very
 light and mild. If his head is hot we should
 apply cold to it and if his body is hot we may
 sponge it with cold water. If the bowels are
 costive give a laxative, if disposed to diarrhoea
 give astringents and starch injections. Give
 cold water for a febrifuge. When the mouth be-
 comes dry and the tongue begins to clean off and
 the bowels torpid then it is that turpentine
 is an excellent remedy. If epistaxis occur-
 rs take linnen rags and wet them in a solu-
 tion of sugar of lead and then roll them up then
 screw them up the nostrils. If the patient's
 strength becomes weak support it with stimu-
 lants and cordials. If he becomes so that
 he cannot swallow we may administer
 nourishment by the rectum, &c.