



AN

INAUGURAL DISSERTATION

ON

Cholera Infantum

SUBMITTED TO THE

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Cholera Infantum.

It would be superfluous for me to attempt to give anything original about this disease, as I never had an opportunity of making any personal observations; but I will give the symptoms, course treatment &c. of the affection as I have been taught. I~~X~~ will be as brief as circumstances will admit, as a long and minute detail would be unnecessary and perhaps dull and monotonous. Although I shall attempt to be ~~brief~~ brief, and handle the ~~the~~ subject with the best of my ability, yet I have a spirit of emulation, with an honest desire to arrive at an honorable point of distinction, in doing my duty, which prompts me to attempt that, which I feel I am incapable of ac-

complishing. This disease is confined principally to the United States, and to the middle and southern portions. Why it is confined to the U. S. I am unable to say; we have negative proof that it does not exist elsewhere, for authors of other countries have not noticed its appearance.

Cholera Infantum as its name indicates, is confined to infants, and to those between the ages of four and twenty months, seldom occurring in those beyond this age. It prevails in all our large southern cities during the summer months. It is a disease that affects the cities and towns almost exclusively, and is worse in those of largest size and most densely populated.

Cholera Infantum usually begins with

diarrhoea and vomiting, which are the most prominent symptoms. In mild cases the diarrhoea may exist for several days before the vomiting appears; but most generally they appear simultaneously.

The diarrhoea at first is profuse, and of a light yellow color; as the disease advances it gives way to a thin watery or mucous inodorous discharge which are frequent and in small quantities.

The stomach, owing to the great irritability rejects every thing that is taken into it. The irritability of the bowels and the discharge continues, the vomiting is usually suspended but may continue throughout the attack. When the vomiting is checked, every thing taken into the stomach passes through the alimentary

canal in an undigested state, which pro-
duces emaciation in an exceedingly rapid
degree; the little patient dwindling away
to a mere skeleton. The pulse is small,
quick and threadlike, the abdomen is hot
and painful, while the extremities are
cold: occasionally delirium occurs. The skin
is dry, the tongue covered with white fur
or mucus: there is great thirst and occasi-
only drowsiness. The fever is more intense
in the evening. The discharge from the
bowels continues and becomes of a dark
color, small in quantity and of a very
offensive odor. The discharges are mucus
mixed with food, which is in an undiges-
ted state. There is more or less spasmodic
pain of the stomach and bowels. The lips
are pale dry and shriveled, the eyes glassy,

the abdomen becomes tympanitic, or it may be sunken. Petechiae appear upon the surface of the body, and occasionally vesicular eruptions upon the breast, which is a very bad symptom. When the vomiting continues with the diarrhoea unchecked it is a very bad sign. The flesh becomes soft and flabby, the skin is loose and hanging about the neck, the eyes sunken, sometimes and most usually they are kept half open, the patient seeming unconscious. The abdomen which was tympanitic, becomes sunken; the skin becomes of a dark or dull dirty color, the eyes bloodshot, and symptoms of delirium supervene: ^{it} ~~he~~ throws his ^{its} head from side to side seeming ~~paralyzed~~ and utters faint cries and moans. He generally ^{it}

sleeps with ^{its} his eyes about half open.
The pulse becomes slow and languid,
and death comes on accompanied by con-
vulsions, or it may ~~it~~ occur from an at-
tack of acute meningitis.

During the disease there is great thirst,
the appetite is very variable, sometimes
~~sometimes~~ voracious and again it is en-
tirely wanting. The discharge varies in
a great degree, from the thin transparent
mucous, to the dark green color. There is
occasionally curdled milk discharged im-
gued with blood. The discharges are chiefly
of mucus or slime, but in the advanced
state they resemble the washings of pu-
trified flesh. When the disease lingers
on for several weeks there is little
or no appetite remaining. It is not

unfrequent to find worm either dead or alive in the discharges. The discharges seldom have the healthy fecal smell they are either sour, putrid, offensive or inodorous. Mixed with the liquid discharges there is occasionally a white, yellow, green or translucent matter variously combined. Sometimes they consist entirely of slime tinged with blood.

The disease may prove fatal in twenty four hours, or it may run on for three or four weeks. It not unfrequently terminates in chronic diarrhoea which lasts until cold weather, convalescence is then, generally, slowly established. Hydrocephalus is an alarming symptom, and may occur in the latter stages. The return of the discharges

to the natural condition, increased appetite, regularity in the evacuations, increased liveliness on the part of the patient, and a general subsidence of all the morbid phenomena affords grounds for a favourable prognosis.

Upon postmortem examinations, when the disease has been rapid in its progress, the mucous coat of the intestine has a light pale color; there is no indication of inflammation, the liver is more or less congested. When the disease has been protracted, the mucous coat is inflamed, and occasionally there are ulcerated spots or follicles scattered over the surface. The mucous membrane is softened, so much so, that in some instances it can be easily scraped off.

The glandular follicles are enlarged. There are occasionally dark livid spots found scattered over the surface of the stomach and duodenum, which resemble minute extravasations of blood. The alimentary canal is either empty, or contains small quantities of mucus, which is thick and tenacious. The liver is congested; the gall bladder contains a dark green or almost colourless fluid. The brain is generally in a high state of congestion: there is effusion in the ventricles, with thickening and softening of the membranes. The anatomical lesions depend in a great measure upon the length and rapidity of the disease.

If the disease is rapid and quick in its progress, there are no lesions observ-

able, except the peculiar pale color of the mucous coat of the bowels. But if the disease has existed for a long time the lesions I have enumerated above will be found.

The disease is caused by the impure air of cities together with a certain degree of temperature. Its increase is in proportion to the heat of summer. It disappears upon the appearance of frost. It attacks generally those of the poorer classes, who live in ill-ventilated, damp, dirty alleys, courts and lanes. It is most likely ^{to} attack those fed from the bottle, proving that diet has some influence in the production of the disease. Feething has great influence in calling the predisposition into action; the same is true of worms in the

bowels. It seldom if ever attacks children over two years of age or after teething.

The prognosis depends in a great degree upon the ability to move the patient from the impure air, to the fresh and pure of the country.

The disease consist in irritation and inflammation of the bowels, and perhaps congestion of the liver, the other lesions are probably accidental.

The treatment consists first in the removal of the child to the country. The removal of the child from the foul atmosphere may be looked upon as absolutely necessary. They should not be taken from the breast as there is nothing that could be substituted so good as the ~~mother's~~ milk. But if it is necessary to take away

the breast on account of the mother's health,
or if the child be already weaned, it should
be kept on fresh rennet whey, gum arabic,
rice water, tapioca, or some of the milk mu-
cilaginous drinks, meat broths, ~~of~~ beef tea, warm
bathing &c. The gums should be examined
and if inflamed, they should be freely lanced.
The clothing should be warm and dry, with
soft flannel next to the skin. All nutritive
drinks should be given in small quantities,
and often repeated. When there is much
thirst ice, powdered and placed in a piece
of linen, and kept in the mouth will be
of advantage. In the latter stages something
more nutritious may be given, as essence
of beef or mutton. All sources of irritation
should be removed from the bowels, and
an attempt be made to regulate the different

secretions. Particular attention should be paid to the congested liver. The vomiting should be allayed in the first stage, by a mustard poultice to the epigastrium, or rubefacients, neutral mixture, lime water and fresh milk, (one table spoon full lime water to two of fresh milk,) mint water, ginger tea, paregoric &c. Anodyne injections are useful when the vomiting is excessive. The patient should sleep upon a mattress in a large well aired room. Small doses of calomel, or solution of camphor in sulphuric ether, will usually allay the irritability of the stomach. In pain and tenderness of the abdomen, leeches should be applied, followed by warm fomentations. When the irritability of the stomach has been allayed the bowels should be evacuated with a combination of Rhuix & Magg^{ss}.

If the diarrhoea is still progressing an attempt should be made to check ^{it} by a combination of Calomel grj prepared chalk griv ipecacuanha and acetate of lead aa grss. When the diarrhoea is stopped, the acetate of lead should be left out of the prescription. The bowels should be kept open at the proper times; the best cathartic for this purpose is calomel and rhubarb aa vi to x gr. Calomel grj Dover's powder grj is a good remedy when there is little or no irritability of the stomach and bowels. A few drops of Tr Opium may occasionally be given to quiet pain and spasm of the bowels. Carbonate of soda or potash should be given if there is acidity of the stomach. If the diarrhoea continues we should use some of the vegetable astringents, such as, Kino, Catechu, Black

berry root, Tannin, decoction of logwood,
or some of the mineral astringents, as
acetate of lead or nitrate of silver &c. Warm
baths should be used throughout the
whole course of the disease; they gen-
erally prove highly beneficial. The salts
of iron should be used when there
is great emaciation. Stimulants should
be used when the patient is weak
and sinking; such as carbonate of am-
monia, wine whey &c.

When there is delirium, with injection
of the eyelids, red eyes, determination of
blood to the head, with other symptoms
of cerebral disorder, cold lotions should
be applied to the scalp, leeches behind
the ears, followed by blisters. Warm
foot baths should be frequently used,

together with friction to the extremities
with oil of turpentine, cayenne pepper
or blisters should be applied to them.

If the abdomen is tympanic with griping
pains oil of turpentine should be given
two or three times a day in doses of,
from v to x drops. If the discharges
are black or dark coloured, acid and
offensive a combination of charcoal gr
Pulvis Bhu grj Ipe gr 33 Ext Argoscranus grj should
be given about every four hours. If there is high
inflammation, strong quick pulse, high fever the lancet
may be used, but I would prefer ~~the~~ leeches to the
lancet in all stages of Cholera Infantum.

Strict attention should be paid to
the diet, he may be supported on ef-
fence of beef or mutton, boiled rice,
Acacia, tapioca, with toast water &c.

J. J. J.