An Inaugural Dissertation

On

Cholera Infantum

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By

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Of

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W. T. Berry & Co., Booksellers and Stationers, Nashville, Tenn.
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. It 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, and handle 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-
completing. 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
diarrhea and vomiting, which are the most prominent symptoms. In mild cases the diarrhea may exist for several days before the vomiting appears, but most generally they appear simultaneously. The diarrhea 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 everything 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 produces emaciation in an exceedingly rapid degree, the latter 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 occasionally 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 discharge is mucous mixed with food, which is in an undigested state. There is more or less spasmatic pain of the stomach and bowels. The lips are pale dry and shrivelled 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: he throws his head from side to side, seeming to stare, and utters faint cries and moans. He generally
sleeps with his eyes about half open. The fever becomes slow and languid, and death comes on accompanied by convulsions, or it may occur from an attack of acute meningitis.

During the disease there is great thirst, the appetite is very variable, sometimes sometimes voracious and again it is entirely wanting. The discharge varies in a great degree, from the thin transparent mucous, to the dark green color. There is occasionally curdled milk discharged thick with blood. The discharges are chiefly of mucous or slime, but in the advanced state they resemble the washings of putrefied 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, fetid, 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 slimy 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 diarrhea which lasts until cold weather, convalescence is then, generally slowly established. Hydrocelephalus 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 vivacity on the part of the patient, and a general subsidence of all the morbid phenomena affords grounds for a favourable prognosis.

Upon post-mortem examinations, when the disease has been rapid in its progress, the mucous coat of the intestines 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, somewhat so, that in some instances it can be easily scraped off.
The glandular follicles are enlarged. They 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 observed.
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 illventilated, damp, dark, 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. Seething 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 consists 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 then is nothing that could be substituted so good as the mother 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 venenat whey, gum arabic, rice water, tapioca, or some of the milk unctuous drinks, meat broth, kept only warm. The gums should be examined and if inflamed, they should be fully banded. The clothing should be warm and dry, with soft flannel next to the skin. All nutritious drinks should be given in small quantities and often repeated. When there is much thirst, ice, pounded 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
scretions. 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
rubbe paint, neutral mixture, lime water
and fresh milk, (one tablespoonful lime water
and two of fresh milk) mint water, ginger tea,
paragonies. Anodyne injection 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 so-
olution 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 fomenta-
tions. When the irritability of the stomach
has been allayed, the bowels should be evac-
uated with a combination of Rhi g X Magg 33.
If the diarrhoea is still progressing an attempt should be made to check it by a combination of calomel qj, purgant chalybeate frasunculae and acetate of lead as gross. 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 in the proportion of 1 to 4. Calomel qj Dom powder is a good remedy when there is little or no irritability of the stomach and bowels. A few drops of Iq Opia may occasionally be given to quiet pain and spasm of the bowels. Carbonate of soda or potassa 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, cathchu, black...
bony root, tannin, decoction of logwood, or some of the astringent, as acetate of lead or nitrate of silver. Warm baths should be used throughout the whole course of the disease; they generally prove highly beneficial. This salt 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 ammonia, wine routerc.

When there is delirium, with injection of the eyes, red eyes, determination of blood to the head, and 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 extemities 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 dose of from 1 to 30 drops. If the discharges are black or dark-coloured, acid and offensive a combination of charcoal, 30 Pulv Rhei gr. xii. Eps Hyoscyamus gr. 20 should be given about every four hours. If there is high inflammation, strong quicksilver, 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 essence of beef or mutton, bolus, rice, acacia, tapioca, with toast water & c.