

cause of this disease, intending that this term shall include whatever may be the noxious cause, or causes, that arise in that portion of the year, which has been defined.

XLVI. On this head we will only add that the disease under consideration, and indeed acute diseases generally, have in this place been more common when the summer has been warm and dry, than when cool and moist. Such, at least, have been the results of the author's remarks, but he submits them with diffidence. The period, during which they have been made, has not been sufficiently long to authorize confidence.

XLVII. *Improper food* is the next among the remote causes enumerated in section xxxviii. That food is improper, which the stomach will not digest, or not without difficulty. The best food is the nurse's milk to children who are affected, or who are liable to be affected, with this disease. We therefore seldom find this disease in any of its severe forms among infants at the breast. A child, while at the breast, during the warm weather, will often digest even other food than that obtained from the nurse much better, than after he is weaned. These considerations might lead us to inquire under what conditions infants should be taken from the breast. But on this head enough has already been stated in sections xx. xxi. Material effects are produced by other errors in diet, beside that of depriving the child of the nurse's milk at an improper age or season. But this subject must be fully considered, when treating of the cure; to which time we refer it.

XLVIII. *Restraint from exercise in the open air.* Children, who are frequently and freely in motion in the open air, are comparatively very little subject to the cholera of infants. The disease is most common among those children of the rich, who are bred in the nursery, and who are seldom indulged in the use of the open air; and among the children of those poor who live in single apartments above the ground floor, or who from any causes are unable to keep their infants much abroad.

XLIX. *An impure atmosphere.* This cause is very frequently combined with the last; but it is also found to be injurious, independent of that. What constitutes the impurity of atmosphere productive of this disease, we do not undertake to decide. We can only say that it is such as is found in cities, and even in villages, where the houses are very near to each other. In such situations the disease is much more prevalent than in the open country, and a removal from the former to the latter is very frequently attended with the most happy effects in children affected with cholera.

(To be continued.)

II.

An Account of the Symptoms in the Case of the late Dr. Ezekiel D. Cushing, of Hanover, with the Appearances on Dissection.

By BENJAMIN LINCOLN, M.D.

THE following account of the symptoms in the case of the late Dr. Ezekiel D. Cushing, of Hanover, has been drawn up from several sources, and is by no means complete.

The existence of severe disease in the intestines, which was not indicated during life ; the absence of all traces of recent inflammation of the lungs, although inflammation of that organ, as well as of the heart, was supposed to be clearly indicated; the extreme irritability of the stomach, in connexion with ptyalism ; the unnatural position of the omentum, in connexion with obstinate hic-cough ; and the peculiarity in the structure of the sphenoid bone, in connexion with epilepsy, are facts worth preserving.

More than a year ago, Dr. Cushing expressed to his friends a belief that his health was declining, but was not able at that time to refer this effect to any cause.

Six or eight months ago his stomach began to be disordered, as was shown by spitting of food, and occasional vomiting after eating. Several remedies, among which was the blue pill, were tried, but without relief.

For several months before his death, he was observed to be much in the habit of picking his nose, and he complained of an offensive ulcer there.

During the months of January and February he had a copious secretion of urine with increased thirst, often drinking two quarts of water and passing the same quantity of urine in a single night. There were no traces of sugar in the urine, but it foamed much when voided. For this complaint he took Griffith's myrrh mixture ; with what effect is not known. While this increased secretion of urine continued, his appetite failed and he became somewhat emaciated ; but his strength was not sensibly diminished. He was able

to attend to the duties of his profession, which were very laborious.

About the 1st of March, after a day of unusual fatigue, he was called, at a late hour of the night, to visit a patient who lived twelve miles off. On his way he found himself unable to whistle to his horse, and suspecting a paralytic affection, he tried to speak, but found himself unable to articulate distinctly without confining the muscles of one side of his face with his hand.

This affection, which some of his medical friends regarded rather as a spasm of the muscles of one side than as a palsy of those of the other, disappeared the next day without the use of any remedy except cayenne pepper and rum externally. Immediately afterward, symptoms of inflammation of the lungs came on, from which he was in a great measure relieved by venesection. But the relief was only temporary. Symptoms of inflammation of the lungs soon returned, with symptoms of inflammation of the heart, and with throbbing in the head, which he represented as almost insupportable. At this time he was visited by Dr. Thacher, of Plymouth, and was bled freely, with entire relief from the disorder in the head, and with great abatement of the symptoms of inflammation in the thorax. A dose of jalap and calomel was given at the same time, which brought on ptyalism. With the subsidence of inflammation and access of ptyalism, great irritability of the stomach and hemorrhage from the nose came on.

On the 23d of March Dr. Doane, of Boston, visited him. The most urgent symptom, then,

was great irritability of the stomach—almost constant nausea with frequent puking, especially after taking food; pulse 90; strength sufficient to allow him to sit up and receive and prescribe for patients; but he did not leave his house.

Small blisters over the stomach, often repeated, sulphate of quinine, laxatives and a milk diet, were prescribed. He took, very reluctantly, two doses of the sulphate of quinine, one quarter of a grain each, but complained of great oppression and sense of stricture in the upper part of the thorax, and refused to take any more.*

On the 30th Dr. Doane saw him again with Dr. Ingalls. The vomiting was then more urgent; bilious; pulse a little less frequent than on the 23d; strength so much diminished that he was obliged to keep his bed. Thirty grains of ipecacuanha were given, which relieved the nausea and vomiting for that night: but they returned the next day.

On the 1st of March a moderate diarrhœa came on; stools

small, bilious, and very offensive. Once while on the stool he complained of pain in the bowels; but had not before, and did not afterwards, not even when they were pressed upon with considerable force. Until this time the functions of the bowels had not been at all disordered. Pulse about 80, regular, and with a good degree of strength; countenance pale and death-like; constant, but not profuse hemorrhage from the nose; breath very fetid—the fetor of putrid blood; frequent vomiting of bile.

An infusion of columbo was recommended by Dr. Macomber, of Marshfield; this he took several times, one teaspoonful every hour, but it appeared to increase the disposition to vomit, and was discontinued. Angustura bark and quassia were tried in the same quantity, but with the same result. Dr. M. recommended the mucilage of gum arabic sweetened with loaf sugar. This remained on the stomach better than milk, barley water, or any thing else, and he continued to take it in small quantities as his principal food.

2d. Occasional hiccough; nausea and vomiting less severe; countenance not so pale; has somewhat a brownish yellow tinge; no dejection. In the evening, laxative injections were given without any operation. Sleep much disturbed by hiccough and constant running of blood from the nose into the fauces.

Hiccough almost constant through the day. Sinapisms were applied over the stomach, but he complained that the irritation was more than he could bear, and they were soon removed. A small dose of laudanum was given, which

* There is reason to believe that the imagination had something to do with this sense of oppression. Dr. C. had never before seen the sulphate of quinine, but had got the idea that it was a medicine of great activity, as might be inferred from his taking one quarter of a grain instead of two grains as directed. A few days before he had taken a dose of a strong infusion of cinchona, and was much distressed after it; and he feared the same effect from taking even a very small dose of the sulphate of quinine. On the 30th he consented to take a larger dose; two grains were given, in two unequal fragments of a large pill, of which he immediately puked up by far the largest part. Nevertheless, not knowing this fact, he soon felt the same sort of oppression, in a degree proportional to the dose taken.

checked the hiccough for a short time. There was a slight hemorrhage from the tongue (and gums?). During the night he was exceedingly restless; constantly annoyed by hiccough; no sleep till 4 in the morning of the 4th, when *five* drops of laudanum being given, he ceased hiccoughing and fell asleep in less than twenty seconds. The accumulation of blood in the fauces prevented his breathing quietly, and he awoke in about twenty minutes, as restless as before. During the night and the succeeding day he was slightly delirious at intervals.

4th. Very restless all day; constant hiccough; hemorrhage from the nose increases, but is by no means profuse. Has had no secretion of urine for two or three days. In the afternoon pulse begins evidently to grow more feeble; regular; about eighty. In the evening an injection of milk and arrow-root, containing twenty drops of laudanum, was given, and ten drops of laudanum taken into the stomach. This produced about one hour's repose; after which he became very restless. Passed a restless night; had several dejections, all of which contained coagula of blood which came from the nose.

On the morning of the 5th, after a short convulsive struggle, he died.

Examination, commenced eight hours after death.

Abdomen.—The omentum turned up over the stomach and liver, and lying between those organs and the diaphragm.

The stomach was small and flabby; the coronary veins much distended; the mucous membrane

very easily torn and separated from the muscular coat; its color for the most part is tolerably well represented by fig. 3, pl. I. in No. I. of the Amer. Journ. of the Med. Sciences; near the pylorus, however, there was a dark circular patch, about one inch in diameter, where it *seemed* that blood had been effused between the mucous and muscular coats. (Not certain.)

Œsophagus perfectly healthy.

The intestines were much contracted in calibre; the rectum, five or six inches above the sphincter, admitting the forefinger with difficulty; the calibre of the colon at the transverse arch not exceeding one inch in diameter. The mucous membrane of the intestines was diseased throughout; covered with irregular, dark, or even black patches, in the centre of which appeared something like a little ulcer, with raised edges; but on examination with a microscope, the matter contained in these *apparent* ulcers was found not to be pus, but something resembling fibrin; an appearance new to all the gentlemen present, and not easily described.

The pancreas was diseased throughout; not much, if at all enlarged, but very hard and crispy—scirrhus. The duct was not examined.

The gall-bladder was much distended with bile, having nearly the consistence of tar.

No other traces of disease were found in the abdomen.

Thorax.—About a pint of water in the cavity of the pleura. The lungs at their superior part adhered to the spine, but this adhesion appeared to be of long standing, and with that exception no

trace of disease whatever could be found in this organ.

The heart was unusually large; the walls of the left ventricle very thick and strong, but without any marks of diseased structure; the valves sound. The external surface of the heart was covered with coagulable lymph, and in several places adhered to the pericardium.

Head.—Brain perfectly healthy except a few minute hydatids in the plexus choroides of one side.

There was an evident peculiarity in the structure of the bones forming the sella turcica. The posterior clinoid processes were elongated, apparently by an extra-bone or a cartilage. The space between the anterior clinoid processes was remarkably protuberant; so that the pituitary gland, if not actually pressed upon, was more completely surrounded by bone than it usually is.*

During the last two or three days of his life, several small pieces of bone were discharged with the coagula from his nose. The os nasi of the right side came away to an extent sufficient to give an obliquity to the nose which it had not before.†

Boston, May, 1828.

III.

Further Remarks on the Paper of Dr. Hayward.

By CHANDLER ROBBINS, M.D.

ONE or two other things, incidentally alluded to in my paper on

re-vaccination, have also been protested against by Dr. Hayward.

First, with regard to the influence of cutaneous diseases. If the disease of the skin is sufficient to prevent the vaccine vesicle from assuming its characteristic appearance, there can be no question that it interferes, (as would any other morbid condition capable of producing this effect) with the full influence of vaccination. From this plain truism no one can dissent. I stated, or intended to state (for this subject being but casually alluded to, was expressed in terms so general that their meaning might easily be mistaken) I stated as questionable, what seems to be the notion advanced by Dr. Gregory in one of his recent papers, namely, that although vaccination appears to take well, and to go regularly through its several stages, yet, if the patient have any cutaneous disease at the time, his system is thereby prevented from receiving its full protective action. Two reasons are assigned by Dr. H. for protesting against what I said on this subject, namely, that Dr. Jenner and Dr. Gregory taught otherwise.

If Dr. H. understood me to dissent from the truism above mentioned, he would be fully justified in setting me right; but if not, I cannot think him correct in supposing that Dr. Jenner taught otherwise. He taught that any cutaneous disease capable of preventing the virus from producing its usual effect *on the skin*, prevents also its effects *on the constitution*; and if the *local* symptoms are such as they should be, there is no reason to doubt the impression on the system. Nay more; even should any eruption produce

* Dr. C. had been subject to slight attacks of epilepsy.

† A paternal aunt of Dr. C. is now suffering from cancer in the nose.