preservative there is against the infection of epidemic diseases.

As if to counterbalance the loss of life occasioned equally by war and pestilence, 1854 and 1855, not only is the mortality constantly below the average, but the births also are as constantly above it. This has been the case for the last six months at least, and presents a curious subject of inquiry to our notice.

ON THE CONNEXION BETWEEN HYPERÆMIA OF THE KIDNEY AND CONVULSIONS IN INFANTS.*

By FREDERICK JAMES BROWN, M.D., Chatham.

THIS paper is founded upon two cases that were observed during life, and dissected *post mortem*.

CASE I. Henry William B., aged 5½ months, the child of a licensed victualler in Rochester, died on the 6th April, 1856. He was taken ill on the 3rd, and suffered from convulsions during the three days of his illness. There was no history of urinary disorder. The bladder and rectum ejected their contents during certain of the convulsions. Another child in the same family had died of convulsions.

EXAMINATION OF THE BODY thirty-six hours after death. Body fat; sugillations posteriorly. *Head.*—Membranes of the brain of a bright red colour. Cerebral substance natural, not presenting an increased number of bloody points. Ventricles natural. Sinuses in the occipital region loaded. Slight increase of serum at the base. *Thorax.*—Lungs and heart healthy. Heart full of blood on the right side. *Abdomen.*—Liver healthy, but exhibiting the marks of the ribs on its surface. Right kidney healthy, not congested. Left kidney natural in its cortical, but congested in its tubular portion. The congestion was extreme, for there were threads of blood that appeared to be extravasated, but which were found, on closer examination, to be intravascular. The intestines were healthy.

CASE II. George W., aged 18 months, the child of a dockyard labourer at Chatham, died on the 12th April, 1856, of convulsions.

The child was large-headed, and very fat. The other children of the family resembled it in these particulars. This child was taken ill on the 1st February, 1856, with œdema of the penis, pain in the abdomen, and suppression of urine.

On the following day a very small quantity of urine was passed, but the secretion continued scanty for a fortnight, up to the date of the convulsive seizure, when I was first summoned to the child, namely, on the 15th February. I found that the child was teething. The scalp was hot, and the convulsions were occurring at short intervals. Lancing the gums, cold applications to the head, calomel, and salines, constituted the treatment. The child was discharged well on the 27th February.

The convulsions returned on the 31st March. I saw the child on the 2nd April; it lived till the 12th. It would appear to be better for a day, and then be seized again with convulsions; and so the illness continued unto its termination in death.

The scalp was hot, and the urinary secretion was diminished during the second attack. The total duration of the complaint stood thus: kidney affection, nine weeks; convulsions, seven weeks; second attack, twelve days.

EXAMINATION OF THE BODY, forty-eight hours after death. Body very fat; head large. *Head.*—Scalp natural. Sinuses of skull loaded with blood, which escaped in streams on removing the calvarium. Membranes full of blood. Numerous dark-coloured bloody points seen on section of the cerebral substance. Slight increase in the amount of serum both in the ventricles and at the base. Cerebrum and cerebellum healthy. No lymph found effused. *Thorax.*—Lungs congested, otherwise healthy. Heart not opened; apparently healthy. *Abdomen.*—Three white spots on the liver, affecting the serous tunic only. Liver and spleen healthy. Kidneys natural in their cortical portions. The tubular portions were intensely congested. There were two threads of blood apparently extravasated, but really contained in the vessels. The intestines were healthy.

REMARKS. The conclusion that the first case was one of primary renal congestion is deduced from the circumstance that one kidney only was found in a state of hyperæmia.

When venous fulness is discovered after death by convulsions, it is usually regarded as a stagnation of blood caused by the convulsive movements; but, in such cases, an increased amount of venous blood is observed, *post mortem*, in both the lungs and the kidneys, and not in one lung or in one kidney only, but in the organs of each side of the body. Moreover, there is extreme fulness of the veins within the skull. But it will be noticed that the first case presented no pulmonary congestion, and only moderate intra-cranial venous fulness, and thus differed from the condition usually present in cases of convulsions.

The fact of one kidney only being congested precludes the idea of secondary congestion. Therefore, the renal congestion was primary. It does not follow that the arterial hyperæmia of the cerebral meninges was the effect of toxæmia induced by the renal congestion, but I shall show that it was a probable result. The meningeal hyperæmia was either primary, that is to say, occurring as determination of blood to the head (as the affection was formerly termed), or it was induced by some other process, such as irritation of the dental nerves, worms, toxæmia. Now, in this case, the child was not teething. There is no statement respecting worms. Toxæmia alone remains. Toxæmia is readily induced by alteration in the normal constituents of the secretions. The effect of "a cold" is an impure state of the blood, consequential upon altered secretion. It is highly probable that convulsions are caused by toxæmia in all instances, excepting those of traumatic inflammation; for the secretions are deranged in worm cases, and the urine is diminished in children teething, when convulsions are observed. The irritation of the worms or of the teeth, as the case may be, is the exciting cause of the convulsions when conjoined with an impure state of the blood. If dental irritation were alone sufficient, every child would cut its teeth with convulsions, which is not the case. The only cause for toxæmia in the case under consideration was renal congestion; and it is to this that I refer the meningeal hyperæmia, thus making it secondary to the kidney affection.

The objection to considering the meningeal hyperæmia as primary, consists in the circumstance that, in every instance, there is a history of disordered secretion preceding the attack, or there are *post mortem* appearances of renal or of cardiac disease.

The second case that I have narrated is very different from the first. The *post mortem* appearances are entirely those usually observed after death by convulsions. It is the clinical history that determines the pathology of this case. The urinary disorder occurred in a marked form. But for the prominence of the urinary symptoms, the case would surely have been regarded as one of convulsions caused by teething. I attribute the convulsions to the concurrence of teething with uræmia. The condition of the brain and its membranes differed in the two cases.

Arterial hyperæmia of the meninges, with a normal condition of the cerebral substance, was found in the first case, whilst venous hyperæmia of both the substance and the membranes was seen in the second. In the latter case, the viscera partook of the general remora in the circulation, but in the first case the viscera presented their natural appearance, with the exception of one kidney.

I now sum up the points of fact, which I leave for the consideration of the profession.

1. A male child, of five and a-half months, predisposed to disease of the nervous system, not teething, is seized

* This Paper was brought before the Annual Meeting of the South-Eastern Branch of the Association on the 25th June, but not read because of want of time.

with convulsions, and dies in three days. One kidney is excessively congested in its tubular portion. The lungs are normal. The occipital sinuses are the only intracranial venous canals that are loaded. The meninges are scarlet. The cerebral substance is normal.

2. A male child, of eighteen months, with large head and of squat figure, thus resembling other members of its family, with teeth pressing on the gum, is seized with ischuria renalis, and œdema of the penis. The urine continues diminished in amount for a fortnight. Convulsions occur, and are repeated at intervals for twelve days. A second attack of convulsions takes place sixty days from the date of the ischuria, and forty-five from the commencement of the first convulsive seizure. The second attack proves fatal in twelve days. The urinary secretion continues scanty throughout the whole course of the illness. The *post mortem* examination is typical of what is observed in death occurring by convulsions during teething.

In conclusion, I have to observe that I do not maintain that kidney disease is always attended or succeeded by convulsions. In 1852 I met with a case of renal apoplexy in an infant of three months that proved fatal in five days, without convulsions.

I have just a word or two to say respecting treatment. I consider it to be of great importance to treat the kidney affection by leeches and sinapisms to the loins, in addition to the ordinary method employed, of a warm bath, with cold applications to the head. The internal remedies that answer best are the saline mixtures, together with calomel.

CASE OF ULCERATED STOMACH, CAUSING DEATH BY BEING SUDDENLY DETACHED FROM ITS ADHESION TO THE PERITONEUM.

By William Collyns, Esq., M.R.C.S., Chudleigh, Devon.

I was requested by a friend to open the body of a female relative, who had died suddenly, under circumstances for which he could not satisfactorily account. I extract from my note-book the following particulars, which he gave me, and the *procès verbal* of the autopsy.

"E. W., aged 21, a very fine young woman, but inclined to be corpulent, with a florid complexion, robust, and of active habits, had occasionally complained of an acute pain in the left hypochondrium, after taking a full meal; but, as it never lasted an hour at a time, and as her digestion was good, nothing was prescribed for her but an occasional aperient pill. Being corpulent, she was accustomed to have her stays laced very tight, and to wear a broad band round her waist, which was also made excessively tight; and it was thought the pressure might have caused the pain. One morning, after having used great exertion dancing at a ball the night before, she ate a hearty breakfast, and quickly after walked out with some young friends. Suddenly, she was seized with very severe pain in her side, from which she said something was tearing away; she shrieked violently, became faint, and fell down in the street. She was immediately removed to the house of her relatives, which she had shortly before left. Efficient medical aid was instantly obtained; but, after suffering intense agony for three hours, she expired."

Autopsy, twelve hours after death. I opened the abdominal cavity. There did not appear to be any omentum, but merely a ragged sort of fringe along the greater curvature of the stomach. There was no external appearance of inflammation on the stomach or intestines; but on that portion of the lesser curvature of the stomach, which in the erect position of the body would have been in contact with the abdominal parietes on the left side, these was a considerable deposit of coagulable lymph, and a perforation into the stomach from internal ulceration. There was also a similar deposit of lymph on the membranous lining of the abdominal cavity, to which it was apparent the stomach had adhered; and it was opposite this spot that she had always complained of the pain. The stomach was very large, and contained a good deal of undigested food; but the fluid parts had escaped into the cavity. All the other abdominal viscera were perfectly sound.*

CASE OF CIRSOID ANEURISM.

By W. E. Crowfoot, Esq., F.R.C.S., Beccles, Suffolk.

[*Read before the Suffolk Branch, June 26th*, 1856.]

The following case may prove interesting, as illustrating a disease of rare occurrence, of which the precise pathological character is not at present described, and for which no safe remedy has been suggested.

Case. Charlotte Clarke, aged 23 years, a married woman, and the mother of two children, came under my care in May 1844. I took the following notes of her case at that time:—

She is fair, with a fresh and florid complexion, and states that she has suffered for many years from severe pain in the head. About eight months since, and two months previous to her last confinement, her pain became extremely aggravated, especially upon lying down; the sight in her right eye became dim, and is now almost entirely lost; both pupils are much dilated; she has a constant noise in her ears, like the fall of rushing waters, becomes frequently delirious at night, and all her symptoms are much aggravated when the head is lowered, so that she is always obliged to sleep in a sitting posture; her health is in other respects good; the bowels are regular; the catamenia returned as usual after weaning, and the pulse is regular and natural in frequency.

At the age of eleven she first observed a slight swelling on the upper and right side of the forehead, just on the frontal protuberance; this gradually went on increasing, but without pain, till about three weeks since, when it became extremely sensitive, and it now presents the following appearances. The right temporal artery, after passing in front of the ear, becomes extremely thin in its coats, and tortuous and varicose in its course; upon reaching the frontal protuberance, the original seat of the disease, it becomes dilated to the size of the little finger, and upon applying the ear to the swelling in that situation a distinct whizzing and bellows sound is to be heard, similar to that observed in an aneurism; the vessel continues in the same dilated and tortuous state to the extent of seven inches over the vertex, precisely resembling in appearance a varicose vein in the leg; it is exquisitely sensitive throughout its whole course; it is joined by numerous anastomosing branches from the supraorbital and frontal arteries of the right side, and by the left temporal. It has by pressure produced absorption of the external table of the frontal bone; so that it appears to run in a groove in that bone, the roughened edges of which may be distinctly felt. All the neighbouring vessels are extremely tender, as is also the right carotid throughout its whole course; the eye and circumference of the orbit on the right side are also very painful when pressed upon. The arrest of the circulation in the right temporal produces but little influence upon the tumour; but when the right carotid is compressed, the pulsation almost ceases in it, and does so entirely when both carotids are compressed, which, of course, can only be borne for a few seconds.

Such was the state of the disease as noted in 1844; since that time she has been three times confined, had very severe hæmorrhages on each occasion, and also loses very largely at each catamenial period, and has, at the same time, generally considerable hæmoptysis; she still suffers severely from her head, with occasional attacks of faintness; her sight is improved; she can lay with her head lower, and has less noise in her ears; the diseased vessels are themselves gradually becoming larger, but, on the whole, are less painful than formerly, and she discharges her house-

* I have the stomach in my possession, but have lately found this note, which was made twenty-five years ago.—W. C.