first on one side then on the other, with the thighs bent towards the abdomen, and in great distress, moaning and crying out, and begging that something might be done to relieve him of his pain. He had constant vomiting of small quantities of fluid tinged with yellow bile, and could not take a teaspoonful of fluid without its inducing urgent vomiting. There was much general collapse; the pulse was very quick and very small; the eyes were sunken; he had great facial anxiety; the hands and fingers were cold, clammy, and of a reddish colour; there was no elasticity of the skin or subjacent structures. The abdomen was flat, or rather concave, below a transverse line intersecting the umbilicus, but a little prominent above that line. There was considerable tenderness on pressure near and above the umbilicus.

Dr. Ridge detailed to me with great precision and exactness the history and succession of the patient's symptoms, suggesting, with Mr. Chapman, the propriety of performing gastrotomy immediately. This recommendation being in perfect accordance with my own experience of previously observed cases, I proceeded to make an incision in the median line about three inches long, beginning a little above and to the left of the umbilicus, and extending it downwards. The linea alba was exposed; this was divided vertically, first close to the umbilicus, until the peritoneum was brought into view. A portion of this membrane was pinched up by the finger and thumb, and opened with a scalpel. The finger being introduced into the abdomen served as a director to complete the extension of the opening corresponding with the incision into the skin. The transverse colon, with the great omentum attached to it, were now seen. The colon at near the upper angle of the wound was small; the omentum was free from fat, and spread completely over the small intestines. Both colon and omentum were turgid with blood-vessels loaded with blood, some miliary tubercles were visible in the omentum, and similar tubercles were subsequently observed in the walls of the small intestines. On attempting to draw upwards the omentum, some resistance was felt; and I passed my finger under its left edge, and found a band or cord of membrane, about as thick as a crow's-quill extending from the omentum to the spine amongst the contracted small intestines, and fixed to the left side of the root of the mesentery. This band was divided, after some little trouble, by a sawing motion across it with the finger nail, between one and two inches from its posterior fixed point; and the other end, or that attached to the omentum, was drawn forwards and brought to the external wound. It did not bleed. As this band did not appear to girt very tightly the intestines, and as the symptoms were obviously connected with or produced by complete obstruction of some kind, I concluded it could not be the true cause of the urgent symptoms. I therefore passed my finger downwards to examine the obturator foramina; and finding them both free, I then directed my finger upwards towards the beginning of the jejunum on the left side of the median line, and found that immediately after this portion of the small intestines becomes comparatively free from the spine, where it is continuous with the duodenum, it had passed towards the right side of the abdomen through an abnormal hole in the mesentery, in which position it was tightly retained. I withdrew this portion of intestine from its incarcerated position by steady traction upon it towards the left side of the abdomen, and brought it forwards into view. It was about six or eight inches long, distended, dark coloured, highly congested with blood, but not gangrenous. The hole through which it had passed admitted the ends of fingers easily.

Sufficient cause for the urgent symptoms having been now ascertained, and remedied as far as possible, the edges of the external wound were adapted by sutures, and a pad of lint supported by plasters across the abdomen. Scarcely any blood had been lost by the operation, and no great difficulty was experienced in this instance in keeping the intestines within the abdomen, as all the intestines below the obstruction, which was near to the stomach, were empty and contracted; but their walls were dark, and con-

gested with blood, and, in that respect, their appearance was peculiar and unusual. I suppose this peculiarity is to be explained by the hole in the mesentery being occupied to distension by the incarcerated intestine, and producing pressure upon the superior mesenteric vein, which traverses the root of the mesentery before going over the duodenum, close to the abnormal hole through it, and so led to congestion in the branches of the veins proceeding from the jejunum and ileum; and I may add, as the result of several *post mortem* operations, that the jejunum quits the duodenum on the left side of the spine about one inch and a half above, and to the left side of, the umbilicus of an ordinary sized abdomen.

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PUERPERAL CONVULSIONS.

By F. F. GIRAUD, Esq.

CASE I. Mrs. P., about eight months advanced in pregnancy of her second child, had complained of an oedematous state of her lower extremities, and the urine was found to be albuminous. Very suddenly, at 11 p.m., on Nov. 30, 1852, she was seized with pains of a spasmodic character in the stomach, accompanied with vomiting and purging, which soon yielded to small doses of calomel with opium. At one o'clock, after having had a little sleep, she complained of pain in the head, and fell into a state of general convulsion which lasted a few minutes, and then she went to sleep for about an hour, after which the same convulsion fit returned, and continued to alternate with sleep; but before the convulsion came on, she awoke and looked about the room as if in search of something. The os uteri was not in the slightest degree dilated. Bleeding in the arm, leeches to the head, blisters, and the exhibition of small and repeated doses of calomel, were the remedies used, but with no good effect, the convulsion fits continuing as frequently and severely as ever. At 12 o'clock at noon, an attempt was made to bring on labour by rupturing the membranes with a *stilette couchée*. The os uteri began to dilate in about four hours after the liquor amnii had escaped, but was not sufficiently enlarged to admit of the hand passing into the uterus until nine o'clock at night, and during all this time the convulsion fits continued to recur about every hour; the child was delivered about half-past nine without difficulty, and from this time no return of convulsions took place, and in a few hours she became quite conscious and free from all uneasiness.

The following day, December 2nd, a tendency to diarrhoea came on with a feeling of exhaustion, and some pain in the region of the uterus accompanied with the expulsion of foetid coagula; the pulse not having taken alarm, it was thought that in a few days the uterine pains would subside; this, however, was not the case, as the discharge of decomposed coagula mixed with the lochial discharge continued, and with much pain in the region of the uterus alone.

The urine on being examined, three days after her delivery, ceased to exhibit the presence of albumen, and the pulse was but little affected. On the 8th Dec., the ninth day from the first attack and the eighth from the delivery of the child, a very severe and protracted rigor came on, followed by slight reaction, a faltering pulse, low delirium, and in a few hours she expired.

CASE II. On the 18th April, 1853, I was called at one in the morning to Mrs. C., living near to my own house, on account of her having severe pain in the bowels resembling colic, she was also very sick, and was eight months advanced in pregnancy of her second child. I gave her fifteen drops of liquor opii sedativus, and ordered a similar dose to be given in an hour if the pain continued. I was called again at seven, her husband at the same time telling me that she was in a fit. I found her in a state of convulsion when I reached the house. I was informed that she soon threw off from her stomach the dose of the opiate which I gave her at one o'clock, and as she became easier, the second dose was not given. She complained occasionally

of pain in the head, and remained perfectly conscious until four o'clock, when a convulsion fit seized her; but, as it soon passed off and she became composed, her husband thought she was gone to sleep, and did not call me until the second attack came on between six and seven. I then found the os uteri beginning to dilate, being about the size of a shilling, and she had no return of convulsions until eight o'clock; in the interval she was only partially sensible, but the os uteri continued steadily to dilate, and, having taken some blood from the arm, I resolved to turn and deliver the child as soon as I could safely pass my hand into the uterus. However, labour made rapid progress, and the convulsions became less severe and frequent, so that I did not think this proceeding necessary. During this time I examined the urine taken from her chamber-pot, and found it highly albuminous. Between ten and eleven o'clock, a living child was born, but its birth was followed by a more severe convulsion than she had had before, and in spite of all our remedies, such as leeches, blisters, calomel and mercurial inunction, the fits continued every half hour until about ten o'clock the next day, when she expired in a state of coma; but the convulsions continued to assail her almost to the last, and the urine continued to show the presence of albumen.

I was not consulted by Mrs. C. previous to the 18th of April; but her neighbours have informed me that for some time past she had complained of severe pain in the head, she was free from all tendency to œdematous swelling.

I removed the kidneys after death, in order that I might take the opinion of Dr. Bright. The cortical part of these organs presented a leaden blueish hue; but I could not detect any material departure from healthy structure. In order, however, to be certain, I resolved to send the kidneys to Dr. Bright without changing their appearance even with spirit of wine; unfortunately some delay took place in their reaching his hands, and they were too much decomposed for him to give an opinion upon them.

REMARKS. In both these cases convulsions took place at the eighth month of pregnancy, were ushered in with gastric disturbance, and, in both, albuminuria existed; in one, indications of its presence were given by the œdematous state of the cellular tissue, in the other no warning symptoms existed. In one case, both the convulsions and the albumen in the urine disappeared after delivery of the child was accomplished, in the other the convulsions continued unabated, and the urine in the same state after the child was born. At the time of the occurrence of these cases there was so scarlatina prevailing, or any known case in the neighbourhood.

DETECTION OF ALBUMEN IN THE URINE. The reference to this process in the preceding observations gives me an opportunity of recording a difficulty which has occurred to me. A case presented itself in which it was necessary to ascertain the presence of albumen in the urine; but, as this excretion was rendered turbid by the admixture of mucus from the bladder, it was thought desirable to precipitate it by a little strong acetic acid before the application of heat or of nitric acid. The acetic acid threw down the mucus completely, and rendered the urine perfectly clear. But, on boiling the clear fluid, no albumen was precipitated, nor did nitric acid exhibit its presence. Some urine from the same patient was then cleared of its mucus by filtration instead of acetic acid; and the usual tests of heat and nitric acid then brought to light a considerable quantity of albumen. Some urine was examined from another patient known to be in the last stage of Bright's disease. The urine in this instance had no pus or mucus in it. On adding a little strong acetic acid, no precipitate took place, but it completely prevented the subsequent application of heat and addition of nitric acid from having any perceptible effect, whilst these tests threw down a very large proportion of albumen in the same urine, not previously treated with acetic acid.

Faversham, Kent, April 1854.

CLINICAL NOTES ON CHOLERA.

By W. LAUDER LINDSAY, M.D., late Resident Physician of the Surgeon Square Cholera Hospital, Edinburgh.

[Continued from page 353.]

[THE subjoined wood-cuts, illustrative of the Histology of the Evacuations, reached us too late for insertion in their proper places in the Journal of April 21st.—EDITOR.]

Fig. 1. Illustrative of the histology of the vomit.—a. Echinus-like fatty bodies. b. Potato-cells, full of starch grains or collapsed and empty. c. Compound granular bodies. d. Oil globules. e. Muscular fibres. f. Various forms of triple phosphate. g. Common salt. h. Pavement epithelium, some scales large and transparent; others atrophied, hazy, or granular, and more or less loaded with oleo-albuminous granules. k. Bands of mucus. l. *Sarcina Goodii*, complete and in fragments. m. Cylindrical epithelium, from interior of intestinal canal. n. Starch granules. o. Isolated spirals of vegetables, consumed as food. p. Fragments of parenchyma of vegetables. q. Pitted and spiral vessels of vegetables. r. Isolated cells from the parenchyma of vegetables, consumed as food. s. Forms of "annular bodies".

Fig. 2. Illustrative of the histology of the urine.—a. Various forms of uric acid. b c d. Casts of the renal tubuli, transparent, granular, and oily. e. Dumb-bell and octahedral crystals of oxalate of lime. f. Pavement epithelium, normal and altered in various ways. g. Compound cells, from leucorrhœal discharge. h. Pus, from the same source. k. Incipient fungoid mycelium, probably developed subsequent to the voiding of the urine. l. Forms of triple phosphate—some of them obtained by concentrating the urine, others by the use of re-agents. m. Forms of urate of ammonia obtained in a similar way. n. Action of acetic acid on leucorrhœal pus. o. Compound granular bodies.

III. PATHOLOGY OF CHOLERA.*

External appearance of the body. On looking at the corpse of a cholera patient prior to making a *post mortem* examination, the features were generally found placid and but little disturbed, thereby indicating a comparative absence of the suffering so frequently attending death in most diseases. In many cases, the surface was merely pale, and

* In describing the most illustrative pathological phenomena of cholera, where it is not otherwise specially mentioned, I am understood to refer to cases fatal in the collapse stage.