entrance wound with cotton saturated with corrosive-sublimate solution.

The patient rallied well, and in the afternoon seemed fully as comfortable as before the operation. The cotton plug was removed, the wound syringed with corrosive-sublimate solution, and plugs of necrosed tissue removed by forceps. There had been some sweating. His pulse varied from 88 to 90, and was rather weak; temperature 100.2°. When a night visit was made on this same day, little change was noticed, except that the left eye (which the swelling had succeeded in closing in the early morning) was even more tightly closed.

On the following day the patient was no worse; in fact, there was scarcely any change. Plugs of necrosed tissue were removed, and the same treatment carried out.

The symptoms were improved on the following day. The patient had slept without opium, and the necrosed tissue came away more freely. It was a disappointment to learn at the visit in the afternoon (3 o'clock) that a third focus had started on the left cheek on a level with the angle of the mouth. This was hard and tender. The breath was offensive, but the general condition was good. This spot extended in its progress along the lower border of the inferior maxilla, involving the lower lip as far forward as the median line. The area which at this time was involved measured two and one-half by three inches, practically the whole of the left side of the face.

No further cutting was done, but by forcing lines of communication from one focus to another, by means of a director and probe, it was possible to reach the whole diseased area by injection with the syringe; and later the necrosed tissue was pressed out from the lower angle of the jaw through the opening first noticed.

His recovery was gradual. He was able to sit up for a while on November 30th, after which date convalescence was rapid, so that he was discharged well, December 3d. Almost no scar remained, and none which is not now covered by his mustache.

PUERPERAL ECLAMPSIA.¹

BY T. E. CUNNINGHAM, M.D.

It must be conceded, I think, that this is one of the most dangerous and alarming conditions to be met with in the practice of obstetrics. It destroys more lives than any other puerperal affection, in proportion to frequency. Statistics are not very reliable on this subject; but taking a moderate estimate, it probably occurs once in four or five hundred deliveries, with a mortality of about thirty per cent. for the mothers and fifty per cent. for the children, although some authors place it much higher.

In an experience of two thousand obstetric cases, eclampsia was encountered three times, twice at the commencement and once before labor, and all were primipara who were suffering from albuminuria. One of the patients was very dropsical; and owing to the difficulty of re-establishing the function of her kidneys, complications rapidly followed, which caused her death. The other two slowly but perfectly recovered; one has

been delivered since of twins and enjoys good health, whereas the other, who was delivered last December, and apparently made a good recovery, is suffering from chronic parenchymatous nephritis, which, judging from a recent examination of the urine, is in the inactive stage. Two of the children were born dead, the other dying on the third day. This is not a very brilliant showing; and yet it would seem that, in the light of modern science and with the wisdom of the ages to guide us, one ought to be able to cope more successfully with this terrible malady.

Our literature is replete with theories relating to the mysteries which surround its etiology and therapy; but considering that the questions are still *sub judice*, we take up each new journal wondering what the next speculator will have to say. From the repletion and depletion theory of Hippocrates to the bacteriological theory of Gerdes is quite a lapse of time; but it requires very little knowledge to enable one to appreciate the clinical value of the ancient as compared with this modern view of the subject. From a study of the works of different authors and a limited bedside experience, it would seem that we are in possession of all the theories for the explanation of the obstetric phenomena. The difficulty all along appears to have come from trying to make one or two factors do what it takes several to accomplish. We have been taught so long to consider eclampsia as closely allied to albuminuria, that disturbance of functions, other than those of the kidneys, has received but indifferent attention until within a comparatively short time. It is not to be inferred that this is not an important factor, but that the renal affection alone rarely is sufficient to produce convulsions. It is only a part of a whole, a collective cause, the other parts consisting of pregnancy — usually the first — a watery condition of the blood, and high nervous tension. It is a matter of common observation that women looking forward to first motherhood suffer more from excitability of the nervous system and from emotional disturbances than they do in subsequent ones; and when it is realized that this state of things is kept up, perhaps for weeks, exhausting the nervous system and lessening the power of resistance, it is easy to conceive how favorable the conditions are for an explosion, particularly after the noxious elements begin to accumulate, through faulty elimination, whether it be due to pressure on the ureters, renal insufficiency pure and simple, hyperæmia, or acute or chronic nephritis.

The treatment of eclampsia is as varied as its etiology. For the sake of brevity the various means may be enumerated as follows: (1) chloral or chloroform, (2) morphine, (3) venesection or *veratum viride*, (4) induction of labor. Of course, other medication is called for, such as cathartics, diuretics, diaphoretics, cold to the head, sinapisms to the extremities, and proper conditions of temperature and ventilation, according to the special indications of the case. As the trouble may appear before, during, or after labor, an opportunity is offered for the exercise of good judgment in the selection of the right method or methods of treatment.

Owing to a lack of experience, the third class or post-partum form will not be discussed.

In the second class of cases, which is by far the most numerous, the consensus of opinion seems to be in favor of hastening delivery. I adopted this teaching in two cases of this class, but do not think I would

¹ Read before the Cambridge Society for Medical Improvement, May 22, 1893.

be so rash again, since nature will do the work much better than we can, if we only sustain her. It is taught that the os under these conditions is soft and dilatable; but it is not always so, and the time consumed in manual dilatation may be an opportunity lost. To allay nervous excitement and control spasms is of first importance; then the other conditions can be studied more leisurely, and the suitable means adopted to combat them.

The first patient was a plethoric young woman; and I think she might have been saved had bleeding been resorted to, since by this means the blood-tension of the cerebral vessels would have been diminished and prevented the extravasation that killed her. Routine treatment is as objectionable here as in any other department of medicine.

The second case was in an anæmic woman, with conditions just the opposite in every particular to the first; and if I had given her chloral, and waited for a natural delivery, she probably would have done better and given birth to a living child. As it was, her recovery was protracted, and much of the delay was due to unnecessary manipulation.

In the first class of cases, or ante-partum eclampsia, there are no pains, and labor may not be due for some time; and it is still a vexed question what are the best measures to adopt under these circumstances. The induction of labor is recommended by some who consider you are guilty of double murder if under these circumstances you question the procedure; whereas others, more conservative, recommend it only after all other means have failed. Lusk says, "The practice of waiting for nature proved uniformly disastrous, whilst the induction of labor furnished a certain proportion of recoveries."

Nevertheless, I took exception to this well-known teacher, and treated the third case on the expectant plan. There was an interval of a week between the first convulsion and the delivery; during the first twelve hours there were five convulsions, and the patient complained of severe headache, blurring of sight and nausea; the secretion of urine was diminished, with a specific gravity of 1,008, and contained one-half per cent. of albumen. The bowels had been constipated just before the first attack. The usual remedies for restoring the functions of the stomach, bowels and kidneys were administered; but as they did not operate by the time the fifth convulsion supervened, sixty grains of chloral were given, per rectum, with orders for half that amount to be given every four hours. During the next twenty-four hours the bowels were moved and the stomach settled; nourishment was taken, and, although she complained of headache, she was not nearly so nervous. The urine, collected after the convulsions, was chocolate-colored, had a specific gravity of 1,040, and solidified on boiling. The sediment, examined microscopically, showed renal epithelial cells, blood globules, and hyaline and granular casts. Five days from the time of the first seizure she had three more convulsions, which were controlled by large doses of chloral. In two days labor set in; as, at the end of the first stage, inertia threatened, Dr. Joseph Cunningham was called in assistance, an anæsthetic given, and the delivery of a living baby effected with forceps. The uterus contracted well, pulse 108, temperature 100°. The patient passed into a comatose state, and remained in it for four days. With the return of consciousness, it was found she was

blind, and recognized her friends only by the voice. Sight returned in two weeks, and afterwards the convalescence was uninterrupted. The infant died on the third day.

Clinical Department.

A CASE OF FOREIGN BODY IMPACTED IN THE LARYNX.¹

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On the evening of October 10, 1892, J. R., an American, aged twenty-seven years, of slight physique and nervous temperament, sat at dinner, and while hurriedly swallowing his soup and at the same time eagerly discussing with his wife the best situation for viewing the Columbian fireworks, he drew into his larynx a piece of bone, which unhappily had been served him in his soup. The soup was made from a large beef bone, and contained chips of its cancellous structure.

There followed the usual spasm of the larynx, with the sense of impending suffocation. When he had recovered his breath a little, he attempted to dislodge the foreign body by swallowing water and then a bolus of soft bread. Failing to get relief, he called upon a physician, who, hearing the patient's story and seeing nothing in his pharynx, passed a bristle probang several times into his œsophagus. The doctor did not secure the offending piece of bone, but said it must have been driven downward into the patient's stomach. He attributed the continued pain in the larynx to the traumatism caused by the presence of the foreign body being dislodged.

The patient, although still hoarse and suffering local pain, continued to attend to his business—that of book-keeping. He, however, daily grew worse, and became so hoarse that it was difficult for those associated with him to understand him. There was increased cough and shortness of breath on exertion, and the effort to speak became more painful. When he came to me on the evening of October 15th, he complained of pain especially at the right side of the larynx, of hoarseness and of shortness of breath. He told me his story, saying that the bone had been removed, but so much pain and hoarseness remained that he feared he might be developing consumption or something equally serious. Upon examination with the laryngoscope the whole larynx was found to be congested. The left ventricular band was inflamed and swollen, concealing the vocal cord of that side. The right ventricular band was somewhat thickened, but less inflamed than the left. An ivory white body was seen upon the anterior half of the right vocal cord, extending during inspiration somewhat beyond the median line. The posterior half of the right vocal cord remained visible. The left ventricular band presented areas of superficial ulceration, since, with every movement of the larynx, it had been abraded by friction against the rough surface of the bone. In fact, because of this irritation, there was more apparent disturbance upon the left side of the larynx than upon the right, although the foreign body was impacted upon the right side. In spite of

¹ Read at a meeting of the Laryngological Section of the New York Academy of Medicine, December 28, 1892.