experience led to abscess formation. Disease of the kidneys is usually mentioned as a contraindication, and Case xi, which died of acute nephritis after two courses of injections, might be thought to point to this; however, the symptoms of nephritis did not start for more than three weeks after the second course was concluded, and there had been septic absorption with a septic temperature off and on for more than twelve months. Also in a case of advanced phthisis, when the urine was loaded with albumen, I gave forty injections on alternate days with no apparent harm to the kidneys. So, if care is exercised and the injections are given every second day instead of daily, even kidney disease need prove no insuperable bar to this method of treatment.

In conclusion, I must acknowledge my indebtedness to Dr. Bernheim of Paris, who has generously provided me with the material used in the treatment of these cases, and also to my colleagues at the Royal City of Dublin Hospital, who have kindly allowed me to try this method on some of their patients, and have seen and examined many of the cases whose history I have brought before you to-night.

REFERENCE.

¹ *Medical Press and Circular*, March 27th, 1912.

GASTRIC HAEMORRHAGE AND OTHER COMPLICATIONS IN A CASE OF CHILDBIRTH.

By W. D. STURROCK, M.A., M.D. OXON.,
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IN recording the following case I wish to state facts rather than to draw conclusions, and to seek information rather than attempt to impart it; at the end of the description, however, I have ventured on a few tentative suggestions.

The patient, a primipara aged 43, was delivered on August 9th, 1912. The history of the confinement and of the post-partum period is somewhat remarkable.

The ante-partum history was uneventful save in one particular—that for three weeks before labour micturition was performed with great difficulty. The urine was examined from time to time during this period, but showed no trace of either pus or albumen; nor were there any other symptoms of pyelitis.

The patient was of excellent physique and constitution, with a roomy pelvis, and there was no reason to fear any special difficulties, though a prolonged labour was likely, in view of the age of the patient, and consequent rigidity of the soft tissues. This was exactly the case so far as the mechanical processes of labour were concerned; there was no bony obstruction, but the cervix dilated with extreme difficulty, and, further, the uterine contractions were for twenty-four hours distinctly weak. Progress was, therefore, extremely slow, and the application of

H, Gastric haemorrhage; A, acetonaemia; E, septic endometritis, *B. coli* and staphylococci; R, rigors.

high forceps was considered, but, since the general condition remained excellent, was rejected for the time being. Shortly after this decision the pains became much more vigorous and progress more rapid; but before long, though the pulse-rate never exceeded 84, the patient became noticeably restless, and very noticeably thirsty. In view of this state of affairs, and since the perineum was obviously offering great resistance, I applied forceps.

Severe Gastric Haemorrhage.

Here we obtained evidence of the first untoward occurrence. Under the anaesthetic (chloroform) the patient vomited a very

large quantity of blood, which I should judge had been lost into the stomach some three or four hours previously. To judge of quantities under such circumstances is obviously extremely difficult, but to all of us present an estimate of two pints appeared very moderate. This haemorrhage, together with the length of the labour, fully explains the restlessness and thirst described above; it is only remarkable that there was no greater effect on the pulse.

Delivery was effected as rapidly as possible; the uterus contracted reasonably well, the placenta was delivered intact, and there was no remarkable bleeding; the uterine haemorrhage, however, together with the gastric, constituted a serious loss of blood and necessarily caused some anxiety. The good condition of the pulse was fortunately reassuring, and it soon became evident that the patient, though seriously weakened, was no longer in imminent danger. The weakness and the bruising and laceration of the soft tissues made the patient particularly liable to septic trouble. I did not, however, give an intra-uterine douche but ordered vaginal douching; I do not, as a rule, douche either uterus or vagina.

The gastric haemorrhage led to further trouble from the fact that it produced intense heartburn, which practically prevented the patient from taking any nourishment. She was encouraged to take frequent small drinks of water; in addition to this the usual fluid nutriment was tried in turn, but for forty-eight hours the only practicable diet was peptonized milk in drachm doses. In consequence of this limitation of diet the patient was still further weakened; as was natural, the secretion of milk was entirely suppressed.

Acetonaemia and Acidaemia.

By the fourth day, though nourishment was much better taken, and though the pulse was good and the temperature normal, fresh symptoms supervened; the patient was drowsy, listless, and mentally confused, her memory greatly at fault, and her conversation irrational. She was obviously extremely ill, but I was greatly puzzled to find the cause; true mental disturbance naturally suggested itself, but I did not believe this to be the correct solution.

By the aid of Dr. Eardley Holland, whom I called in in consultation, and to whom my best thanks are due, the cause was eventually found in the presence in the urine of large quantities of acetone and di-acetic acid. To relieve the acidaemia rectal injections were given containing sodium bicarbonate and glucose in solution; though they were retained for some time, there was practically no absorption of fluid. I believe recovery was commencing before this treatment was adopted; none the less, it is very possible that, though the bulk of each injection was returned, the crystalloid substances in solution may have been partly absorbed. In any case, however, the patient improved rapidly, the injections were discontinued, and by the seventh day she appeared to be out of danger.

Septic Endometritis (*B. coli* and *Staphylococci*).

On the eighth day the temperature rose to 100.2°; coincident with this rise there was marked tenderness of the breasts, which, in the absence of any sign of uterine trouble, appeared amply sufficient to account for the disturbance. Three rigors, however, supervened, in the last of which the temperature rose to 105° and the pulse to 150; the breasts at the same time became less tender, and it was clear that a further cause must be sought. The lochia had throughout been inoffensive but not suppressed, and there was no uterine tenderness; involution had, however, not been perfect, and the organ was somewhat

P, Pyuria, *B. coli*.

flabby. Examined under an anaesthetic by Dr. Holland, the cervix was found to be rather patulous, and the endometrium smooth and thickened; there was no visible discharge, but culture tubes inoculated from the uterine cavity developed a few small colonies of *B. coli* and staphylococcus, the former preponderating. Two blood cultures which I prepared the next morning were entirely negative. Vaccines were prepared from the culture colonies and held in readiness, but were never used, and treatment consisted of intrauterine douching twice daily and quinine by the mouth. The uterus contracted well, and the temperature soon fell, but rose again on the sixteenth day to 103.2°; the patient again went through a spell of fever,

this time without any rigors. The uterus throughout this attack appeared quite normal. The temperature again fell, but rose once more on the twenty-second day.

Pyelitis (B. coli).

I had examined the urine regularly every other day, and found nothing amiss save a considerable quantity of urates; the acetone had gradually diminished, and was by now scarcely to be detected. At this stage, however, a turbid deposit appeared, after solution of urates, which under the microscope was found to consist of pus with a few granular casts; a catheter specimen was drawn off into a sterile bottle, and from the pus a pure culture of *B. coli* was obtained.

The patient was given urotropine and bland fluids, and it was hoped that the condition would turn out to be pure pyelitis and not pyelonephritis; this was, fortunately, the case, despite the presence of casts, and though there was a further relapse on the thirty-third day the temperature settled down for good on the thirty-sixth; three weeks later the urine was completely free from pus or albumen. The patient is now in good health and steadily recovering her normal vigour.

The patient was, I believe, in the gravest danger on three separate occasions: First, from the loss of blood occasioned by the combined gastric and uterine haemorrhages; secondly, from acute acidæmia; and, thirdly, from septic infection with her resistant powers reduced by loss of blood, lack of nourishment, and also, probably, by the acidæmia.

Gastric haemorrhages during labour, at any rate of a severe type from a healthy stomach, are, I believe, very rare, though they have been recorded, as have also intestinal and intraperitoneal haemorrhages. In this instance the patient had shown no sign whatever of any previous abnormal condition of the mucous membrane. I believe the stomach was perfectly healthy.

The acidæmia opens up a large field of inquiry; the three questions immediately arise—(1) whether the urine already contained acetone before labour commenced; (2) whether, if so, the protracted labour increased the amount; and (3) whether the condition was partly or wholly one of delayed chloroform poisoning. Not much chloroform was administered; a little was given during the pains when the head was reaching the perineum, but it was discontinued at the patient's request, and the delivery by forceps was quite a short process; certainly there was far less chloroform given than is frequently the case. I am quite unable to give an answer to these questions; I understand, however, that there is a growing belief among some obstetricians that there is considerable danger in the administration of chloroform in the free manner so usual during confinements.

The septic infection also raises an interesting point. I am obviously unable to prove that the germs were not introduced from without; the facts, however, that the soft tissues were much bruised and the perineum lacerated, that the patient was in an ideal condition for the successful lodgement of germs, and that there was no disturbance until the eighth day, make it unlikely that pathogenic germs were introduced by an exploring finger. The question which particularly interests me is that of the possibility of the urine having contained *B. coli* before the confinement and throughout the subsequent illness. The frequency of pyelitis, when micturition is seriously interfered with in the *ante-partum* period, is well known; here was a case of serious interference with micturition, but without any albuminuria, pyuria, or other signs of pyelitis. Under the circumstances the idea of looking for bacilli did not suggest itself to me; but it appears to me conceivable that there may have been bacilli in the urine, even though actual pyuria did not appear until twenty-two days after confinement. Were such bacilli present, a secondary infection of the uterus does not seem a far-fetched idea.

Lastly, it is worth mentioning that throughout the illness we were handicapped by the great depression of the patient. This could obviously be largely accounted for by the nature, both general and specific, of her long illness, but was unquestionably also of a true psychological nature. The child, who, it may be mentioned, was with great difficulty induced to breathe, was born with a hare-lip and cleft palate; his advent had been greatly longed for by the mother, and his deformity was an intense and lasting disappointment. A successful operation by Mr. Berry on the hare-lip had a very noticeable effect on the patient's ultimate recovery.

A CASE OF CARDIAC ASTHMA.

BY

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A FEW months ago there was some correspondence in these columns as to whether the term "cardiac asthma" was properly applicable to any clinical entity, and, if so, to what. The following case illustrates the condition which this, and no other term, connotes, and to which the appellation should, I believe, be confined:

C. M., aged 71, a retired clergyman, gouty manifestations for many years, albuminuria and casts for several, and dyspnoea on going uphill or stairs for some months. Heart sounds pure, pulse regular, and blood pressure 160 to 180. Sudden angina pectoris a month ago; two or three moderately severe attacks, followed by "gouty conjunctivitis" in both eyes—one after the other (similar to many previous attacks). Great prostration and dyspnoea on slight movement in bed. Insomnia. Pulse regular, 80 to 90; blood pressure as above; heart sounds pure. Gradual convalescence, first walking into an adjacent room with help on December 26th—a process which was repeated twice on December 27th, the patient feeling better than at any time since the original seizure. Bromides, chloral, veronal, paraldehyde, hyoscine, heroin, and morphine had been used from time to time, none of which affected adversely the heart or the renal secretion. The patient settled for the night at 10 p.m. on December 27th, and as a wakeful night seemed probable heroin gr. $\frac{1}{2}$, which had proved efficacious on two occasions, was injected. Sleep was not obtained; the patient was not comfortable, and at 1 a.m. on December 28th the attack of cardiac asthma developed suddenly. I reached the house at 1.40, to find the patient in a very alarming condition, with the family and two nurses assembled in the room, or just outside, anticipating death. The following notes show the clinical picture presented and the subsequent course of the attack:

1.40 a.m. Patient raised on a pile of pillows. Face and neck congested and cyanosed. Hands and forearms cold, pale, and clammy. Respirations rapid, gasping, oral, 48 per minute. Pulse irregular ("absolutely") and uncountable. Heart, "delirium cordis," no murmurs. Coarse mucous râles all over both sides of the chest anteriorly and laterally; back not examined. Amyl nitrite had failed to relieve.

1.45 a.m. Injection of strychnine and digitaline aa gr. $\frac{1}{6}$, with morphine gr. $\frac{1}{2}$, into left arm subcutaneously. Oxygen administered from cylinder.

1.55 a.m. Aspect easier, respirations 36.

2.10 a.m. Comfortable. Respirations 28. Pulse about 100, and nearly regular.

2.20 a.m. The patient told his wife to go to bed. He was "all right." Slept and dozed all night, taking nourishment once or twice.

8 a.m. Moving easily in bed, and turning from side to side without assistance. Pulse, 82; regular in time, and nearly so in volume. Heart sounds normal. No râles audible anywhere. Respirations 18.

8 p.m. Has spent a very comfortable day in bed.

It would be easy to comment on this case and to speculate on its cause and true nature, as well as on the share the various remedies had in producing the improvement which so rapidly supervened after their administration; but the sole object of this communication is to give a brief clinical picture of "cardiac asthma" as I understand it.

Subsequent History.

Convalescence was resumed and there was no further attack of angina or dyspnoea till 6.30 p.m. on January 17th, when a second attack of "asthma" developed with abrupt suddenness. The clinical picture at 7 p.m. was the same as described above. The same remedies were used, but their effect was slower and no relief was obtained until another $\frac{1}{2}$ grain of morphine was injected. The distress was relieved by 7.45, but disturbed respiration, irregular fluttering pulse, and coarse râles over the lungs continued. The patient gradually sank and died on the evening of January 18th.

THE twelfth International Congress of Ophthalmology, to be held in 1914 in St. Petersburg, will begin on Monday, August 10th (N.S.), and end on Saturday, August 15th. Members desirous of communicating reports are directed to forward the manuscript and inscription fee not later than February 1st, 1914; papers must be written in one of the official languages—English, French, German, Italian, Spanish, or Russian. The official subjects for discussion, selected at the preceding congress at Naples, are, the etiology of trachoma and the nutrition of the eye. The President will be Professor Arnaldo Angelucci, chosen in homage to the committee of officers of the last congress. The corresponding members for the United Kingdom are Mr. Walter Jessop, London, Sir H. R. Swanzy, Dublin, and Dr. George Mackay, Edinburgh. Further information may be obtained from Mr. Jessop, and from Professor L. G. Bellarmino, Ophthalmic Hospital, 38 Mochowaja, St. Petersburg.