

as is well known, that struggling under chloroform is produced by three principal causes: (1) by fright, leading to resistance; (2) by choking or asphyxia from over-concentration owing generally to the cap being held too close to the face at first, or afterwards when the chloroform is renewed; and (3) by intoxication. The latter constitutes the form of struggling which is commonly called the "struggling stage." The struggling of fright occurs at the commencement of the administration and does not as a rule produce irregularity of the respiration. This form of struggling terminates as the patient becomes unconscious, and is rarely followed by the customary stage of struggling which is due to intoxication. For example, during September there were twenty-five administrations in children. All but one of these children cried and screamed violently at first. In those that cried there was no subsequent struggling, but the one child that did not cry went through the usual struggling stage. The crying and screaming of children ensure regular respiration and regular in-take of the chloroform, and I never attempt to discourage it. The statistics for the last three years prove that not only is the in-take regular at first in children who scream and cry, but, as there is no subsequent struggling, the crying at the beginning conduces to regularity of inhalation and, therefore, to safety throughout the administration. For this reason the struggling of fright is not a source of danger. Undoubtedly fright causes acceleration of the pulse and of the respiration, and consequently a more rapid in-take and a more rapid conveyance of the chloroform to the nerve centres; but the effect of chloroform, if asphyxia and irregular breathing are avoided, is to soothe fright, and as there is no subsequent struggling the remainder of the inhalation is regular. The struggling of intoxication is more likely to lead to danger than that of fright, as the breathing is frequently irregular in this stage, and it occurs when the anaesthesia is nearing completion. But irregularity of the breathing can be very easily checked during the intoxication stage by removing the cap and giving the patient a breath or two of air; and it can therefore never furnish the chloroformist with an excuse for allowing the in-take to be irregular. The effect of giving the patient air at this stage is not to delay anaesthesia, as there is most probably a small amount of residual chloroform in the lungs, but to restore regularity of the breathing and to avert the possibility of risk. The struggling of choking or asphyxia, which is generally produced by the pungency, or, in other words, by insufficient dilution, of the vapour of chloroform, or by deprivation of air, is excessively dangerous and ought never to be allowed to take place. It leads to gasping or deep inspirations and is the most frequent cause of accidental overdosing. The antidote for simple overdosing is to cause oxygen to reach the respiratory centre, either by pulling forward the tongue so as to stimulate the respiratory movements or by artificial respiration. But when a patient is cyanosed and asphyxiated as well as overdosed everything is against him. It takes time, when every movement is precious, to oxygenate the blood; there is a quantity of residual chloroform in the pulmonary vesicles which the most vigorous artificial respiration may altogether fail to get rid of quickly enough to save the patient's life; and, lastly, it has always appeared to me that the respiratory centre, when it is asphyxiated, is peculiarly susceptible to, and difficult to rouse from, the narcosis of chloroform. If cyanosis is ever allowed to take place under chloroform, thus showing positively that the patient is accidentally asphyxiated, it is imperative on the chloroformist not only to remove the chloroform cap and give air, but not to dare to reapply it until all traces of cyanosis have entirely passed off. It is not a question of how much air the patient is to get: the point to bear in mind is that it will not be safe to continue the administration while any sign whatsoever of asphyxia remains.

The above remarks have reference to the clinical aspects of the various forms of struggling under chloroform. It is to be hoped that the analysis of the gases of the blood, which is at present being carried out by Dr. T. Oliver and Mr. F. C. Garrett³ will clear up much that is still obscure in the physiology of these incidental and accidental phases of chloroform narcosis. There must be important differences in the gases of the blood in such widely diverse conditions as normal anaesthesia where the breathing is natural and regular, anaesthesia promoted with irregular respiration, simple overdosing with chloroform, and overdosing combined with asphyxia.

Hyderabad, Deccan, India.

³ THE LANCET, Sept. 9th, 1893.

Clinical Notes: MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CHOREA; RHEUMATISM; MANY LARGE SUBCUTANEOUS NODULES; MITRAL REFLUX;
GOOD RECOVERY.

BY EDWARD MACKEY, M.D., M.R.C.P. LOND.

A BOY aged nine years was admitted to the Royal Alexandra Hospital for Sick Children, Brighton, under the care of Mr. Morgan, on Sept. 1st, 1893, and was transferred to me on Sept. 8th. In July he had pain in the joints after "paddling" in the sea; on July 6th he could scarcely walk home from a school treat, and he had been more or less in pain since. His aunts suffer from rheumatism. He was thin and looked delicate, but was not markedly anæmic; he had choreic movements of the head, arm, and tongue. Respiration was irregular, but the lungs were normal, except for a few râles. The heart's apex was in the nipple line (fifth interspace); a loud systolic bruit was heard there and also at the scapular angle; the second sound was accentuated at the base. The special point was a remarkable development of large subcutaneous nodules, as shown—perhaps rather overdrawn—in the engraving, which is from a photograph kindly taken by Mr. Hillier. The

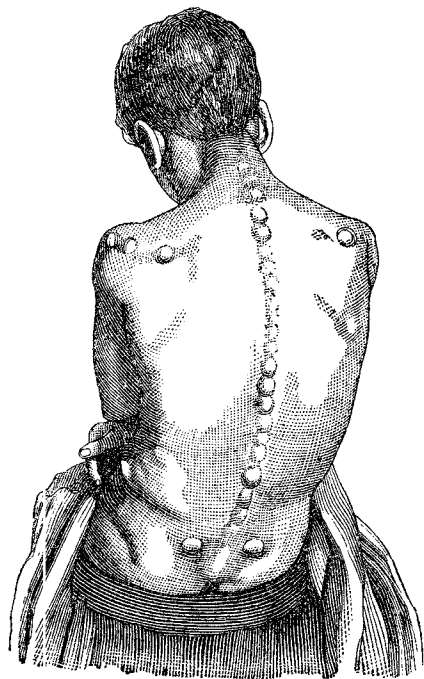


plate referring to a similar case published by Dr. Cheadle in THE LANCET of May 4th, 1889, is almost a facsimile of this boy's appearance. Between thirty and forty nodules were counted, including three on a scapula spine, two on its inner border, eight or ten on spinous processes, several on the iliac crests (some so hard as almost to resemble bony growths), and several on the condyles, on the extensor tendons, on the patella, and on the dorsum of the hands and feet. Mr. Morgan showed the case at a meeting of the Brighton Medico-Chirurgical Society, where it excited much interest as being unique in the experience of the members. Arsenic in from four to six minim doses was ordered, and iodide of potassium in two-grain doses thrice daily was added on Sept. 8th. The temperature never rose above 100° F.; the urine was moderately acid and contained urates, but was free from albumen. The boy was kept quiet in bed, on light food, continuing the above remedies with occasional intermissions, and progressed to recovery without any serious symptom. On Oct. 10th no bruit could be heard, and such nodules as had not disappeared were smaller. On Nov. 8th they were all gone, and he was discharged well and shown so at the Society on Dec. 7th. This good recovery leads me to record the case, inasmuch as the prognosis in

such conditions has generally been considered extremely serious. I am indebted to Mr. Morgan and to Mr. Lewis, house surgeon, for notes.

Brighton.

A CASE OF KOCHER'S RADICAL MODIFICATION OF THE ALEXANDER ALIQUIÉ OPERATION.

BY FRED. EDGE, M.D. LOND., F.R.C.S. ENG.,
M.R.C.P. LOND., B.Sc.,

SURGEON TO THE WOLVERHAMPTON AND DISTRICT HOSPITAL FOR WOMEN.

IN the *Archiv für Gynäkologie*, 1893, is an account by Lanz of Kocher's modification of this operation, with a report of successful cases. The modifications introduced by Kocher are the splitting up of the inguinal canal so as to isolate the round ligament with ease, the drawing upon the round ligaments in the directions of the anterior superior iliac spines, and their fixation upon the aponeuroses of the external oblique muscles whilst being drawn upon. Having a case of prolapse with retroflexion, which was unrelieved by mechanical or medicinal means, I performed Kocher's modified operation as follows (to save the valuable space of THE LANCET I shall limit my description to the operation and avoid details):—

Taking the left side first, an incision was made from just above and external to the pubic spine to about three quarters of an inch above and internal to the anterior superior iliac spine, running parallel to Poupart's ligament. The external inguinal ring was felt as a yielding space and seen to be filled with a plug of fatty areolar tissue. A director was passed into the inguinal canal and the anterior wall slit up with a scalpel. The round ligament lay exposed with the branch of the genito-crural nerve. The ligament was then picked up with forceps, divided distally, and separated up to the internal inguinal ring. Exactly the same steps were performed on the right side. The second assistant now passed a uterine sound and held the uterus forwards. The two ligaments were then drawn upon in the direction of the iliac spines until firm resistance was felt, and the peritoneum was pulled on each as a knuckle three-quarters of an inch long. These knuckles were separated and pushed back. The round ligaments were stitched upon the oblique aponeuroses with continuous silk sutures whilst the given tension was being maintained, and the inguinal canal was closed as after operation for radical cure of hernia. The skin was then sutured with silkworm gut sutures. What at once strikes the operator is the great possibility of hernia following the operation. Another impression is that the round ligaments are very easy to find and can now be treated in any way required, and a following thought is forced upon one that by methods which do not open the inguinal canal the round ligaments cannot possibly be isolated and drawn out to the necessary extent. As to the formation of hernia afterwards I cannot yet speak, but it appears to me that if the inguinal canal be stitched with care the danger should be much less than after abdominal section. What, however, more than any other element, is felt by the operator is that he is acting on one of the modern root-principles of surgery, in that he can see everything, and is not working in the dark or trusting in the varying conditions of the round ligaments and their attachments. The after-course of the case was as follows: The patient was perfectly comfortable from the first, and her temperature was never above 99° F. Although the left incision did not heal at once owing to two stitch abscesses, yet, five weeks after the operation, both incisions were quite soundly healed. The uterus was very elevated, the cervix being only just reachable by the finger per vaginam. I send the account simply to make known the method and to draw attention to its directness and simplicity. Of its value my case will be no test until a year or more has passed.

Wolverhampton.

CASE OF OVARIOTOMY DURING PREGNANCY; AXIAL-ROTATION CYST.

BY W. TRAVERS, M.D. DURH., F.R.C.S. ENG.,
PHYSICIAN TO THE CHELSEA HOSPITAL FOR WOMEN.

(Reported by E. J. MACLEAN, M.D., C.M. Edin., Resident Medical Officer.)

THE brief notes which are appended may be read with interest in connexion with Dr. Lewers' cases published in

a recent number of THE LANCET.¹ The patient, aged twenty-nine, was admitted to the Chelsea Hospital for Women at 2 P.M. on Aug. 23rd, 1893, with the following history. She had been married for eight years and a half and had had six children, the youngest having been born eleven months previously. Six years previously she was found to have an abdominal tumour, which had somewhat obstructed her second confinement, but it did not affect her later ones. At some period during her third pregnancy she was advised by an obstetric physician at a London hospital to have labour brought on prematurely, with the view of the tumour being subsequently removed. This she declined, and the labour was a natural one. She stated that ten days prior to admission she was seized with intense pain in her abdomen, which had continued with more or less severity. Menstruation had not occurred for the past four months. The woman was evidently very ill. The abdomen was generally distended and extremely tender all over, so much so that palpation, to be of any value, was impossible. Vaginal examination showed the uterus to be considerably enlarged and pushed against the pubes; the os and cervix were soft; the fornices distended, evidently by fluid; a thrill was felt generally on percussion; the temperature was 102.4° F.; the pulse 120 and small. An ovarian tumour with, in every probability, a twisted pedicle was diagnosed, with an equal probability of existing pregnancy. At 6 P.M. the abdomen was opened. The colour of the presenting cyst confirmed the diagnosis. There was general peritonitis. The cyst was covered by recent, soft, and easily swept down adhesions. Eleven pints of dark sanguineous fluid were evacuated. The cyst was right-sided; the pedicle, which was very much thickened from œdema and extravasated blood, had to be secured as close to the uterus as possible—it had been twisted two full turns from left to right. An after-examination of the cyst showed that there had been extensive hæmorrhages into its wall, forming dark livid bosses of considerable size, due to venous congestion and obstructed venous return, and in places suggestive of commencing moist gangrene. The patient bore the operation well; her temperature at 10 P.M. was 99°, and she was fairly comfortable. In the forty-eight hours of the second and third day the thermometer twice recorded 102°; it did not again touch 99°, save in one instance on the tenth day, owing to some suppuration about a stitch. She was discharged well on the twenty-fourth day. She came to the hospital on Dec. 23rd complaining of some slight pain in her right iliac region, but was quite able to get about. Her pregnancy was progressing naturally.

CEREBRAL EMBOLISM OCCURRING IN A GIRL AGED NINE YEARS AND ELEVEN MONTHS.

BY CHARLES WICKS, L.R.C.P., L.R.C.S., L.M. EDIN.

ELEVEN months ago a child aged nine years and eleven months came under my care, complaining of præcordial pain, which extended down the left arm. On examination I found a double mitral murmur. Under treatment she greatly improved, and I did not see her again until Dec. 5th, 1893, when she complained of feeling unwell. The mitral murmurs were now markedly developed, and she experienced pain in the left knee, which was distinctly rheumatic. The following day (Dec. 6th) I saw her and found matters slightly improved, but at four o'clock on the same day I was sent for hurriedly and found her suffering from partial aphasia. Although conscious she had lost the power of the right side. The temperature was 104.2° F. and the pulse 120 per minute; the pupils were even and reacting to light; the patellar reflex was very slightly marked, while ankle clonus was very pronounced; swallowing was quite impossible; the patient's bowels had been opened the same morning, and she now passed urine involuntarily in bed. Knowing the child, and having had the opportunity of watching the case thoroughly, my diagnosis of embolus was easily formed and my prognosis grave. The temperature gradually rose from 104.2° to 106° and the pulse varied from 120 to 168. In the evening I called my friend Dr. T. Harrison Davison to see the case with me and his opinion quite confirmed the diagnosis I had made. The patient passed slowly into profound coma at 8.30 P.M. and died at 1.30 A.M. on Dec. 7th. On obtaining permission to make a limited post-mortem examination the same day

¹ THE LANCET, Dec. 16th, 1893.