

wrong, there was a sudden deafening report, and the anaesthetic table was enveloped in a sheet of white flame. The mask was immediately removed from the patient's face, the oxygen cylinders turned off and removed from the theatre, and the fire extinguished. Nothing further occurred, the whole explosion being over in about two seconds. The patient sustained a slight injury to one eyelid, caused by flying glass; the anaesthetist had several small cuts, a black eye and was deafened. No one else was injured.

"There was no electrical apparatus or open flame of any kind in the theatre, and the anaesthetic machine was earthed by a chain. After the explosion the remains of the Boyle's machine were carefully examined. The oxygen and nitrous oxide reducing valves were found to be in perfect condition and quite free from oil. The chloroform and ether bottles, as well as the thick plate glass top of the table, were completely shattered, the re-breathing bag was destroyed, and spare masks and airways were burnt. The face-piece that had been used was intact, the expiratory valve half open, and the respiratory hose of the Magill unit was intact to within 2 in. of its attachment to the machine. At this spot it had obviously burst, and it was concluded that the initial explosion had occurred there, and passed backwards into the machine."

J. C. M. C.

FRASER, R. J.: *Continuous Lumbar Anaesthesia*. Bull. Acad. Med., Toronto 16: 179-185 (July) 1943.

"In the past two years with continuous lumbar anaesthesia technique with one per cent solution of procaine in normal saline solution we have completed over 500 consecutive cases without incident. Besides this the author has had the privilege of presenting this solution with its technique to the

originator of continuous spinal anaesthesia, Dr. Lemmon, and has demonstrated its technique in thoracic surgery. We believe continuous lumbar anaesthesia is a definite advance and that the one per cent solution has increased its scope and margin of safety. . . . The low dilution enables one to produce complete body anaesthesia without anxiety or alarm. . . . Dosage has ranged from 50 mg. to 650 mg. of procaine given in fractional dosage; that is from 5 to 65 cc. . . . The technique commences with preoperative sedation. . . . Ordinarily at 9 p.m., the night before operation, the patient is given nembutal gr. iii; the following morning, one and one-half hours before operation, nembutal gr. iii to iv ss., and one hour before operation morphine sulphate gr. $\frac{1}{4}$ with scopolamine gr. $\frac{1}{150}$ by hypodermic injection. . . . During operation the morphine or pantopon may be repeated in small doses to maintain the desired sedation." 7 references.

J. C. M. C.

EDWARDS, W. B., AND HINGSON, R. A.: *The Present Status of Continuous Caudal Analgesia in Obstetrics*. Bull. New York Acad. Med. 19: 507-518 (July) 1943.

"Our experience with Continuous Caudal Analgesia has presented convincing evidence that labor and delivery does occur with almost perfect comfort for the parturient, without the necessity of any amnesic or an anaesthetic drug. . . . The mechanics of delivery can be carried out according to the preference of the obstetrician. We do not advocate that any individual change his method. At no time should he become the slave of the method, but he should keep the method his slave. However, it will soon be noted that extreme relaxation of the cervix and perineum are features of continuous caudal analgesia which greatly facili-

tate the handling of abnormal presentations, including occiput posterior, transverse arrest and breech presentations. . . . We would reemphasize that the method is best performed by a specialist, in a hospital." 28 references.

J. C. M. C.

IRVING, F. R.: *An Improvement in Catheter Technic for Continuous Caudal Anesthesia*. J. A. M. A. 122: 1181 (Aug. 21) 1943.

"Recently Adams and Lundy described the catheter for continuous caudal anesthesia. The method they described involved the use of a 13 gage Love-Barker spinal needle and a number 5 ureteral catheter. We have used this method in over 250 obstetric cases without any serious complications. . . . Recently we have . . . simplified the technic considerably by employing a 15 gage needle with obturator and a number 4 ureteral catheter. . . . For obese persons or for patients with a small sacral foramen we use a special 18 gage needle $5\frac{1}{2}$ inches long. . . . We employ this needle in the difficult cases. After it is inserted, the 15 gage needle without the obturator is passed over it as a sleeve. The 18 gage needle is then removed. The number 4 ureteral catheter is inserted into the caudal canal through the 15 gage needle, which is withdrawn, leaving the catheter in place. A 25 gage hypodermic needle is inserted into the external end of the catheter, which is connected by an adaptor to an injection system similar to that described by Hingson and Edwards. The 15 gage needle can be used direct in over 75 per cent of cases, the hubless 18 gage needle being reserved for the difficult patient. We have employed this method in over 100 cases." 4 references.

J. C. M. C.

RUTHERFORD, R. N.: *Continuous Caudal Anesthesia in Obstetrics*. West. J. Surg. 51: 6-11 (July) 1943.

"Hingson and Edwards in 1942 applied the principle of continuous caudal anesthesia not only to delivery but also to relieve the pains of first and second stage labor. Their preliminary report on 65 cases has been simplified by subsequent reports from their own group as well as by other investigators. . . . Again we are forced to conclude that the ideal obstetrical analgesia and anesthesia yet glimmers in the distance, for certain technical limitations hamper this procedure as firmly as any of the other agents in more frequent use. The anesthesia still must be adapted to the individual patient with her peculiar needs."

J. C. M. C.

SMALL, M. J.: *A Serious Complication of Caudal Anesthesia*. J. A. M. A. 122: 671-672 (July 3) 1943.

"A secundigravida aged 23, whose previous medical and obstetric history was noncontributory except for a syphilitic infection, acquired five years previously but adequately treated and with negative serologic and spinal fluid findings at present, was admitted in active labor with the cervix three fingerbreadths dilated and the head in midpelvis, the presentation being left anterior oblique. The membranes were intact. Blood pressure was 120/80. The general medical examination revealed no abnormalities. Caudal anesthesia was begun immediately, the technic recommended by Hingson and Edwards being used with one modification. . . . This procedure. . . . utilizes the ordinary intravenous drip arrangement for a slow continuous flow of anesthetic solution instead of the injection of large quantities of solution at intervals. . . . With this