

half gr. was also injected intramuscularly. The patient was immediately put in the Trendelenburg position, and after three-quarters of an hour he was taken back to his room. A feeling of faintness was complained of soon after the injection, but it quickly passed off and he was feeling well, but died three hours after spinal anaesthesia. The prosecution mainly alleged that he was left in his room without the head being kept low, the hypobaric (light) solution caused respiratory and circulatory failure by poisoning the medullary centres. . . .

"The post-mortem findings in this particular case were hypertrophy of the heart, and some fatty infiltration of the liver. The former points to some peripheral resistance to the circulation—sclerotic kidney, high blood-pressure, etc. The latter, though it may not be marked, interferes with the detoxification of the drug, and may therefore produce serious toxic effects even though the fatty infiltration may be slight. . . . Spinal anaesthesia is not well-tolerated by patients with high blood-pressure, and the kidneys cease secreting if there is a sudden great fall of blood-pressure. . . . I have observed no harmful effects in patients who, after operation, were kept flat, without blocks under the feet of the bed, even after high analgesia, whether by hypo, iso, or hyperbaric solutions. . . . The feet of the bed may be kept raised in cases where the blood-pressure is low. The reason for maintaining the Trendelenburg position after spinal is, . . . not to prevent diffusion upwards, but in the hope of preventing severe post-anaesthetic headaches."

J. C. M. C.

HINGSON, R. A.; FERGUSON, C. H., AND PALMER, L. A.: *Advances in Spinal Anaesthesia*. Ann. Surg. 118: 971-981 (Dec.) 1943.

"Within the last five years spinal anesthesia has become the method of

choice in 30 per cent of our operative cases. Since January 1, 1938, we have performed 5150 spinal anesthetics in the United States Marine Hospital at Stapleton, Staten Island, New York. . . . The recent advances in spinal anesthesia; namely, (1) the principle of continuous spinal anesthesia, with an improved method of administration; (2) the addition of a more compatible supplement such as sodium pentothal; (3) more careful selection of cases for the procedure have greatly increased the benefits of this method for both the patient and the surgeon; (4) uniform results obtained with both long and short acting anesthetic agents in properly selected cases; and (5) partial withdrawal of unused and unfixed spinal anesthetics after operation permits more rapid return of physiologic nerve function. The incidence of success for this method varies directly with the skill and experience of the anesthetist. There must be recognized that a permanent hazard exists in the administration of this type of anesthesia. For our type of service, the advantages far outweigh the disadvantages, with the result that spinal anesthesia has become our most reliable method of surgical pain relief."

J. C. M. C.

COWAN, ELLEN B.: *Spinal Anaesthesia in Cases of Delivery by the Obstetric Forceps*. J. Obst. & Gynaec. Brit. Emp. 50: 433-436 (Dec.) 1943.

"The use of spinal anaesthesia in cases of delivery by the forceps has been found to be of benefit under certain conditions. The cases in which this method would be found to be advantageous are: 1. Deliveries following prolonged labour where there was 2nd stage delay and the patient was becoming exhausted. 2. Cases in which an anaesthetic had been already administered during the course of labor. 3. Cases of cardiac disease especially with an associated chest condition. 4. Cases

of albuminuria or other constitutional condition in which a general anaesthetic, especially chloroform, would be contra-indicated. The cases in which it would not be suitable are: 1. The application of the forceps when the head of the child is high up and the uterus is contracted on the occipitoposterior position of the child. . . . 2. Any abnormal presentation requiring intrauterine manipulation. . . . 3. Any disease of the central nervous system or of the vertebrae or any septic condition at the site of the lumbar puncture. In administering the anaesthetic the aim is to confine the anaesthesia so far as possible to the level which would affect the perineum and pelvic floor, i.e., a low spinal anaesthesia. . . . In the series of cases reported the earlier ones had planocaine 10 per cent, the specific gravity being 1032 and the later ones had the same preparation in 20 per cent strength with a specific gravity of 1040. The latter solution was found to produce the better result and a dose of 0.5 cc. to 0.75 cc. was found to be sufficient. . . . Among the 60 patients there was only one maternal death, the case being of severe bronchitis with dyspnoea, in which a general anaesthetic was contra-indicated." 4 references.

J. C. M. C.

JOSEPH, MORRIS: *Twenty-five Years of Spinal Anesthesia (with a Report of 1020 Consecutive Cases)*. J. M. Soc. New Jersey 41: 6-10 (Jan.) 1944.

"Preliminary sedation is vital to satisfactory spinal anesthesia as it is for any surgical case, regardless of the type of anesthesia used. . . . The site for the spinal puncture and injection is selected, depending on the type of operation contemplated. . . . For many years novocaine was used for shorter cases, usually estimated beforehand not to exceed one hour. For longer cases pontocaine has been found very satis-

factory. . . . Spinal anesthesia can be administered much more easily and safely than general anesthesia. . . . It is far more economical and less complicated in its application. The morbidity and mortality are far lower than in general anesthesia. The perfect relaxation of abdominal muscles and contents makes for better surgery." 9 references.

J. C. M. C.

RUDDER, F. F.: *A Mechanical Aid for the Administration of Pentothal Sodium Intravenous Anesthesia*. Mil. Surgeon 93: 426-427 (Nov.) 1943.

"In order that one anesthetist might successfully administer . . . [pentothal sodium] with minimal effort, I . . . [have devised] a syringe holder which has simplified the technique. . . . The anesthetist [injects] a 2½ per cent solution by simply turning the gear wheel of a rack and pinion gear attachment. The movable arm of this attachment contacts the plunger of the syringe and the drug can be given drop by drop when needed. No clotting can occur in the needle, because the movable arm against the plunger allows no back flow."

J. C. M. C.

ROBERTS, F. W., AND SELICK, B. A.: *Continuous Administration of Intravenous Anaesthesia*. Brit. M. J. 2: 813-814 (Dec. 25) 1943.

"The apparatus [used by the authors] is a positive-pressure drip saline infusion apparatus, consisting of a saline reservoir, drip-bulb and tubing, glass aspiration indicator, needle, and a means of providing positive pressure. . . . Pressure is raised in the saline reservoir and the regulating clip opened, allowing saline to flow until all air bubbles are removed. The clip is closed, and the level in the drip-bulb is adjusted by the clip on the side tube. The patient is then in-