

which will be reported in a future paper of this series, we accepted candidates for pentothal interviews on the fundamental assumption that they were free from any contraindications listed above. This series was selected at random, entirely unrelated to specific psychiatric diagnosis. . . .

"[in one case] there existed the possibility of an obstructive atelectasis from the vomitus; and since that time, has caused a more careful evaluation on the part of the author to rule out even recent gastro-intestinal upset as a possible superficial cause of an irregular reaction to pentothal. . . . [A second case] made the writer aware that even conditions such as acute coryza and bronchitis that involve and impair the respiratory function must be respected, even in the healing stage, as a possible contraindication to the use of sodium pentothal. [A third case] was an example of the fact that any disease that involves the respiratory tract in any manner, even though it may be chronic in nature and allergic in manifestation, should be considered as a contraindication to the use of sodium pentothal." A. A.

DOUGLAS, G. W., AND VOSBURGH, L. F.: *Improved Pudendal Block Anesthesia with Hyaluronidase*. Am. J. Obst. & Gynec. 62: 1253-1261 (Dec.) 1951.

"Pudendal nerve block is subject to a number of disadvantages and limitations. . . . The recent introduction of hyaluronidase as an adjuvant in regional anesthesia promises to overcome many of the . . . objections. . . . Among the advantages claimed for mixtures of procaine and hyaluronidase are: rapid onset of anesthesia, wider extent of anesthesia, less tissue edema, and less accuracy required in injection of the solution. The use of this mixture might provide a far more satisfactory anesthesia, while retain-

ing the simplicity and safety of pudendal block with procaine alone. . . . Pudendal blocks in this study were divided into four categories. . . . Group I. In this control group, a critical attitude was adopted in order to bring out the undesirable features of pudendal block anesthesia with procaine alone, and thereby provide a standard by which to judge the merits of other anesthetic solutions. Thirty-eight of these blocks were carried out in primiparas, 12 in multiparas. . . . Results showed that short duration and inadequate distribution of anesthesia, edema of tissues, and poor relaxation of the patient are serious shortcomings of pudendal block anesthesia with procaine alone. Without question, individual skill of the operator had a bearing on the incidence of satisfactory results, and this is a valid criticism of the method if it is to be widely employed by physicians of variable skill and ability.

"Group II. Ten pudendal blocks were performed with 1 per cent procaine with hyaluronidase added. This small group was studied in an effort to determine the effect of the enzyme on distribution and duration of anesthesia. Eight patients delivered spontaneously, and two were delivered by low forceps. Seven were primiparas, and three multiparas. The group included eight episiotomies and one second-degree laceration. In every case anesthesia was apparent by the time pudendal block had been completed, but usually the full effect was not reached for several minutes. . . . Although this group is far too small to permit valid conclusions to be drawn, it is striking that eight of the ten cases were regarded as successful with regard to relaxation of the patient during delivery, while in only two of the ten was episiotomy repair completed under satisfactory anesthesia. In eight cases the patient complained of pain

during the repair, and it was observed that anesthesia was rapidly wearing off. The results in this group indicate that the addition of hyaluronidase to the anesthetic solution causes a far wider distribution of anesthetic effect, but results in an anesthesia of shorter duration. Group III. Two hundred cases were studied, in which pudendal block was performed with 1 per cent procaine, to which hyaluronidase and epinephrine were added. . . . The duration of anesthesia was accurately measured in 87 cases, and in this group the average duration was 80 minutes. . . . Group IV. Ten pudendal blocks were performed by injection of small amounts of 2 per cent procaine containing hyaluronidase and epinephrine at the ischial spines and tuberosities. The vulvar injections were omitted. This was an attempt to simplify the technique of pudendal block, relying on hyaluronidase to achieve satisfactory distribution of anesthesia. Satisfactory results were obtained in only two cases. In the remaining eight, skin anesthesia varied widely or was absent, and relaxation was poor. . . .

"Anesthesia for delivery and perineal repair was regarded by the doctor as satisfactory in 95 per cent of cases in which pudendal block with procaine, hyaluronidase and epinephrine was employed. . . . Pudendal block anesthesia by this method was regarded as inadequate only in difficult midforceps deliveries, where extensive manipulation or difficult rotation was required. There were no breech extractions in this series." A. A.

CULVER, G. A.; MAKEL, H. P., AND BEECHER, H. K.: *Frequency of Aspiration of Gastric Contents by the Lungs During Anesthesia and Surgery*. Ann. Surg. 133: 289-292 (March) 1951.

"Aspiration of gastric contents is probably the most common serious ac-

cident to occur during general anesthesia and surgery. It usually is preventable, and it rarely is excusable. It often is fatal. Obvious vomiting is only half the problem, for silent aspiration of gastric contents by the deeply anesthetized patient during operation is common too. This study in 300 unselected surgical patients was designed to get factual data on the frequency of these two accidents and to gain insight into the factors responsible for each, as well as factors of importance in the prevention of each type of accident. . . . In the patients studied during the course of this work 10 mg. Evans blue dye (T-1824) were placed in the stomach 15 to 30 minutes before the induction of anesthesia. If a gastric tube was present, 4 cc. of 0.25 per cent aqueous solution of the dye were placed in it and this was washed down with 10 cc. water. The tube was then clamped off until the induction of anesthesia was started. When no gastric tube was in use, the dye was placed in a gelatin capsule and swallowed with 30 cc. water. As soon as the operation was over, inspection of the mouth, pharynx, larynx, trachea and main bronchi was made by direct vision through laryngoscope and bronchoscope. All secretions, whether dye stained or not, were aspirated at the time of bronchoscopy. . . .

"In 300 unselected surgical patients regurgitation (as indicated by dyed stomach contents in the pharynx) occurred in 79, or 26 per cent of the patients. Of these 49, or 16 per cent, aspirated gastric contents into the lungs. Frank vomiting occurred in 24 patients, 8 per cent of the cases. Sixteen of these aspirated. Silent aspiration occurred in 25 patients, 8 per cent. Regurgitation occurs much more often when the Trendelenburg or lateral positions are used than when the horizontal supine position or the lithotomy position is used. Special care in