ABSTRACTS

Editorial Comment: A fixed style of presentation for this department of Anesthesiology has purposely not been defined. It is the wish of the Editorial Board to provide our readers with the type of abstract they desire. Correspondence is invited offering suggestions in regard to the length of abstracts, character of them, and source of them. The Board will appreciate the cooperation of the membership of the Society in submitting abstracts of outstanding articles to be considered for publication.


"While the drugs now in common use for block anesthesia are quite satisfactory, the search continues for an even better agent. Clinical trial of hexylcaine hydrochloride since April, 1948, has shown it to have sufficient promise to warrant a preliminary report. We have now used the drug as a spinal anesthetic in more than 100 patients... In our first few cases, the crystalline drug was dissolved in cerebrospinal fluid and injected in the same manner but in smaller doses than we customarily use with procaine. Because the level of the resulting anesthesia was uncontrollable and often went too high, we assumed that in some spinal fluids the drug was isobaric or even hypobaric. Weighting the drug with glucose overcame this difficulty and this method has been employed in all subsequent cases...

"We have also used hexylcaine in fifteen fractional spinal anesthetics with the catheter technic... In addition to using hexylcaine for spinal anesthesia we have employed it in over 200 regional and local nerve blocks in concentrations varying from 1/4 to 1 per cent. Our impression to date is that it is more effective in weaker concentrations than procaine is... Our experience to date indicates that this new drug provides more complete and longer lasting nerve block in smaller doses relative to its animal toxicity than does procaine. For these reasons we believe further clinical trial is warranted. We are continuing our studies and hope that others will try it so that the large amount of data required for the accurate appraisal of a new drug will be amassed."

A. A.


"The test for basal metabolism is accepted as a valuable aid in clinical diagnosis. Although an elevated basal metabolic rate suggests overactivity of the thyroid gland, it is recognized that it may occur in many other clinical states unrelated to the thyroid gland. Interpretation of an increased metabolic rate, therefore, demands careful evaluation of the entire clinical picture. Since in certain nervous patients routine rest is occasionally insufficient to accomplish a basal state, various measures must be employed... An ideal basal state would be normal sleep, but sleep induced voluntarily obviously is impossible to procure. It was thought feasible, therefore, to induce sleep by the intravenous administration of pentothal... The patient to be studied is taken to the metabolism room in a
fasting state, having received a hypodermic injection of 1/150 grain of atropine sulfate one hour before. Two consecutive determinations of the metabolic rate are then taken in the usual way. A trained anesthetist sprays the throat with 10 per cent cocaine and induces anesthesia by the intravenous injection of pentothal, administering the least amount of drug necessary to produce complete relaxation. If the breathing is free and easy, the regular metabolism rubber mouthpiece is inserted. If the breathing is not free, a mental airway attached to the rubber mouthpiece is inserted to facilitate adequate air exchange. Adhesive tape is then tightly applied around the lips to prevent any possible air leak. Two consecutive metabolic tests are then taken. During the test the chin is supported to facilitate normal breathing and a small amount of additional pentothal is injected when necessary to produce uniform relaxation.

"A total of 45 patients were studied by this plan. . . . Eighteen patients who had normal basal metabolic rates and no evidence of metabolic disease were used as control subjects. . . . In normal patients the metabolic rate dropped an average of 13 per cent under pentothal anesthesia and an average of 1 Gm. of pentothal was necessary to induce anesthesia. Patients with hyperthyroidism showed little drop in the metabolic rate under anesthesia and 2 Gm. or more of pentothal was required to produce sleep. Patients with greatly elevated metabolic rates due to various nervous states had a drop in the basal metabolic rate to normal under anesthesia, indicating an absence of hyperthyroidism. This method of metabolism testing induces a perfect basal state—the resulting rate being void of all nervous and muscular factors. In the occasional problem patient with an elevated metabolic rate this procedure may be used to good advantage. . . .

"The test has been used to advantage in determining the safest time for operation on patients with hyperthyroidism who have associated nervous states and in whom satisfactory metabolism tests are difficult to obtain. Hypertensive patients with elevated rates had a lowering of the metabolic rate under anesthesia, showing that the occasional increased rate of the hypertensive patient is related to a tension state and not to the hypertension."

A. A.


"Prolated hemorrhoids are usually excruciatingly painful, yet unless strangulation ensues most surgeons prefer not to operate until the marked edema has subsided. During this period of waiting, which may last several weeks, the discomfort is often extreme. . . . To relieve the sufferings of these unhappy persons, a 1:1000 solution of procaine hydrochloride was injected intravenously. . . . All the patients studied were men admitted for the treatment of severe pain in the anal region. . . . After a preliminary period of observation, some of the patients received a 1:1000 solution of procaine hydrochloride intravenously in a volume containing 4 mg. per kilogram of body weight. The predetermined dose was injected in exactly twenty minutes. Another group received 1 Gm. of procaine hydrochloride in a liter of isotonic sodium chloride solution injected intravenously over a three to four hour period. The first method is suitable for the home and office and the second for the hospital. No barbiturates or narcotics were administered. To aid in reducing the anal edema, the patients were requested to stay in bed but were allowed bathroom privileges.