

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.

LORBER, J.: *Use of Rectal Thiopentone in Children*. *British M. J.* 2: 21-22 (July 1) 1950.

"Rectal thiopentone was given on 113 consecutive occasions to 64 children aged from 3 months to 12 years. The dose was 1 g. per 50 lb. of body weight. Complete and satisfactory sedation was obtained for examination of the fundus oculi, encephalography, and other procedures not requiring surgical incision. No local or general toxic effects were observed." A.A.

JOHNSTONE, M.: *Cyclopropane Anaesthesia and Ventricular Arrhythmias*. *British Heart J.* 12: 239-244 (July) 1950.

"Much attention has recently been focused on the aetiology and control of the cardiac arrhythmias associated with cyclopropane anaesthesia. This gas possesses several advantages over the other anaesthetics in general use, being non-irritant, giving rapid induction, excellent relaxation, quiet respiration and speedy recovery of consciousness. This high incidence of cardiac arrhythmias during cyclopropane anaesthesia remains a very serious disadvantage, particularly for patients with myocardial disease. . . . The bulk of the evidence from animal experiments suggests that the cardiac irregularities are of reflex origin, associated with sympathetic stimulation, and are not due to direct action on the

myocardium or its conducting mechanism. . . . It is generally accepted that either mild degrees of oxygen lack or CO₂ accumulation in the tissues may cause sympathetic stimulation. The object of the present investigation is to ascertain the influence of these two conditions on cardiac rhythm during cyclopropane anaesthesia in man. . . . Ninety patients have been investigated. . . . It has been observed that CO₂ accumulation precipitates ventricular arrhythmias during cyclopropane anaesthesia. The efficient elimination of CO₂ by assisting the respirations prevents the occurrence of ventricular arrhythmias and also abolishes them when present. Ventricular arrhythmias may occur in any patient during cyclopropane anaesthesia provided the CO₂ tension in the circuit is allowed to become sufficiently high." A. A.

HUBBARD, S. T., JR.; SCHNEIDER, G. F., AND KENNEY, L. J.: *High Segmental Spinal Anesthesia; A Preliminary Report*. *J. Thoracic Surg.* 20: 43-50 (July) 1950.

"One of the most difficult problems confronting the surgeon and anesthetist for many years has been the selection and administration of an anesthetic to the patient undergoing surgery for pulmonary tuberculosis. The wide variety of anesthetic techniques suggested by various authors for the performance of thoracoplasties attests

to the lack of suitability of any one method. Cervical intrathecal puncture, single dose, segmental spinal anesthesia comes close to solving the problem. . . . In 1947, the anesthesia of choice for thoracoplasties done by this group was cyclopropane-oxygen administered through an intratracheal tube. This technique was not too satisfactory because of the abolition of the cough reflex with frequent necessity for bronchoscopy. . . . Epidural block with 0.2 per cent pontocaine was attempted in a series of patients, but was soon discarded because of frequent difficulties in technique, the inconsistent degree of anesthesia obtained, poor parascapular muscle relaxation, complete paralysis or extensive paresis of intercostal muscles, and, almost consistently, pain on disarticulating the ribs and removing the transverse processes. Spinal anesthesia was then tried by injecting large doses of pontocaine-glucose solution through a lumbar interspace with the patient in a ten degree Trendelenburg position. This proved unsatisfactory mainly because such large doses had to be used to provide adequate anesthesia at such a high level as to be overwhelming to the patient. The next move was to employ the intrathecal catheter technique as described by Cann and Wycoff. Owing to the uncertainty of producing anesthesia in the operative field as well as the severe paresthesias suffered by several patients this approach was discarded. . . .

"Gradually the intrathecal punctures were made higher and higher at the same time lowering the dosage of pontocaine with each interspace ascended. . . . This study comprises a series of seventy-five thoracic operations done under spinal anesthesia. . . . There were no deaths in the group, neither immediate nor late. Central respiratory paralysis was not encountered, although an accident of this nature was feared and preparations

made to combat it in every case. The respiratory minute volume was depressed on the average of about 30 per cent. . . . The fullest possible oxygenation was insured by the administration of oxygen at ten liters per minute by an efficient BLB mask. Spinal headache was encountered in one case and this was completely relieved with a few oral doses of nicotinic acid. . . . The anesthesia appears to fulfill a much needed place in the surgery of pulmonary tuberculosis inasmuch as it combines advantages of general and local anesthesia without possessing the undesirable features of each." A. A.

ANSBRO, F. P.: *Intraspinal Segmental Alcohol Block for Relief of Intractable Pain; A Preliminary Report*. Am. J. Surg. 70: 276-281 (Feb.) 1950.

"In the past when intraspinal alcohol had been injected, the difficulties encountered were due, in large measure, to the amount of alcohol injected and also in the haphazard manner in which it was used. Alcohol in the amounts of 1/2 cc. to 1 1/2 cc. has been used repeatedly usually in the lumbar region and occasionally higher, for the obtundation of severe pain such as those of cancer origin. . . . It is obvious that a method for neurolysis in the subarachnoid space which would insure accuracy of alcohol placement and safety in regard to possibilities of cord or nerve root damage would be desirable. For this purpose the intraspinal segmental method was developed. . . . A total of twenty patients have been treated. . . . Results have been uniformly good in 75 per cent of the patients. There has been good sensory analgesia without any evidence of motor involvement. There were no evidences of any sphincter damage. In the 25 per cent not helped by the procedure there was no evidence of any motor difficulties. The subjective relief of pain has been excellent." A. A.