

stops pain, controls and prevents the spread of infection in an extremity until the patient is properly prepared for surgery. . . . In trauma and embolism (arterial) the ice pack without tourniquet preserves the tissues of the extremity until collateral circulation develops which may make amputation unnecessary. . . . There is possible danger that cooling may lower the resistance of tissue so that infection occurs more frequently and spreads more rapidly when normal temperatures are restored. A number of uses for the procedure may be found such as the treatment of shock, burns of the extremities, insect and snake bites, and the preservation of skin grafts. . . . Anesthesia is minor in importance when compared to the value of careful and thorough preparation of the patient which the method affords." 16 references.

J. C. M. C.

ANSBRO, F. P.: *A Method of Continuous Brachial Plexus Block*. Am. J. Surg. 71: 716-722 (June) 1946.

"If a regional nerve block (brachial plexus block) could be certain to be effective and to last as long as the surgical procedure required, it would be desirable. For this reason, continuous block of the brachial plexus is employed. . . . By using a blunt needle . . . of the malleable type, and inserting it to the lateral side of the subclavian artery in contact with the upper surface of the first rib and observing it pulsating with the artery, one may be assured that he is in the proximity of the plexus. Paraesthesias in the form of shooting pains down the arm caused by the needle contacting the plexus are helpful and give further assurance of proximity, but they are not essential to success with this technic. If procain is injected at this location in sufficient quantity, a successful infiltration of the plexus will result. The needle is

blunted to prevent perforation of the artery while remaining in situ. By retaining the needle in this position, fractional injections of procain may be made through rubber tubing of convenient length attached to a syringe. The needle is retained in place by the use of a cork through which the needle is inserted before passing it through the skin in the supraclavicular area. . . . One per cent procain without adrenalin is used. . . . Infiltrating the skin area above the clavicle and acromion and circularly about the axilla along its thoracic surface may also be done to block the superficial branches of the cervical plexus. . . . Twenty-seven patients requiring operation of the shoulder, arm, wrist and hand had brachial plexus block by the continuous method. Anesthesia was successful in all cases and it was not necessary to supplement any with general anesthesia. The duration of operations extended from one and one-half hours to four hours twenty minutes. The possible utility of the method in peripheral vascular conditions of the upper extremity is suggested." 6 references.

J. C. M. C.

WILLIAM, P. H.: *"Trilene" Auto Analgesia in Dentistry*. Brit. Dent. J. 80: 330-331 (May 17) 1946.

"An apparatus is so designed that the patient can administer to himself a mixture of air and 'Trilene' vapour. A rubber bulb, held and squeezed by the patient, propels air through a 'Trilene'-saturated wick fixed in a bottle. The resulting mixture is breathed by the patient by means of a special nasal inhaler. Delivery of the vapour depends entirely on the muscular action of the patient, and so overdosage is not possible. . . . Sense of hearing is not abolished, and so patient can be given instructions during the administration and is able to co-operate with the operator. . . .

Operations that have been painlessly performed by the author under 'Trilene' Auto Analgesia are: Preparation of cavities for filling; removal of fillings in periostitic teeth; opening up of pulp chamber in periostitic teeth to allow drainage; opening of abscess in soft tissues; deep scalings; removal of pulps from single-rooted teeth; dressing of painful sockets after extractions. No doubt there are many other uses to which 'Trilene' analgesia can be put." 1 reference.

J. C. M. C.

HALTON, JOHN: *Kemithal Anaesthesia in Thoracic Operations*. Lancet 1: 771-773 (May 25) 1946.

"In patients requiring thoracic surgery there is usually a diminished vital capacity which is nearly always further reduced when they are placed in position for operation with the sound lung lowermost. Any anaesthetic or technique which tends to cause further embarrassment is therefore debarred. . . . A trial with soluble thiopentone as the sole anaesthetic was started two years ago. . . . The main anxiety arose from the fact that the dose of thiopentone required to produce a successful anaesthesia lay very near the toxic level. Too often a delayed recovery offset the obvious advantages of the technique. Then an opportunity was offered by Imperial Chemical (Pharmaceuticals) Ltd. for the clinical trial of 'Kemithal,' which soon proved to have many advantages over the other barbiturates. Laryngeal spasm was notably absent, jaw relaxation was extremely good, and respiration was not so depressed, yet controlled respiration with oxygen alone in a closed circuit was easily possible in most cases. For these reasons it was obvious that the anaesthetic dose was well below the toxic dose. More than 300 major thoracic cases have been anaesthetised, up to date, with kemithal, and a routine tech-

nique for its administration has been worked out. . . .

"Induction is carried out by the injection of a 10% solution of kemithal. . . . The amount varies between 0.75 and 1.5 g., according to the requirements of the patient. If more than 2 g. is required the patient probably has a natural resistance to the drug, and experience shows that it is better to continue the anaesthesia by some other method. . . . Anaesthesia is maintained by the intermittent injection of 0.1 g., as the reaction of the patient to surgical stimuli demands. A lightening of the anaesthesia is heralded by an increase in pulse-rate, deepening and increase in respiratory rhythm, and a return of the cough-reflex; this if allowed will pass on to swallowing, in-coordinated movements, and actual phonation. . . . In a long operation, when the dose of kemithal has reached 4.5 g., it is preferable to maintain anaesthesia with minimal cyclopropane rather than continue with the intravenous barbiturate. . . . Recovery is rapid, the postoperative condition of cases is consistently good, and vomiting and restlessness are rare. The use of d-tubocurarine chloride in conjunction with kemithal in 40 cases has produced promising results."

J. C. M. C.

RAPPAPORT, F.: *An Anesthetic with Prolonged Action*. Acta Med. Orient. 5: 115-116 (April) 1946.

"It is often desirable to prolong the transient effect of a local anesthetic over a longer period of time. . . . Oily solutions have various disadvantages. . . . In order to overcome these disadvantages, and yet to obtain a prolonged anesthetic action, the following course was pursued: In contradiction to the oily solvents mentioned above, water-miscible organic solvents were used only. Instead of the water-soluble salts of the procaine series, the base