

We hesitate to use it in the very obese. All kinds of risks have been done with this combination of agents. It is excellent in transthoracic work; it has been dramatic in its ability to overcome laryngospasm. The technique is a simple one and is safe in competent hands. Patients appreciate intravenous anesthesia and the surgeon is pleased with the abdominal relaxation that these agents afford him. The postoperative convalescence is good and the postoperative complications are at least as low as in the other types of anesthesia."

J. C. M. C.

THOMAS, G. J.: *Paravertebral Block, Classification and Technic*. Pennsylvania M. J. **51**: 525-528 (Feb.) 1948.

"Paravertebral block, literally, is the injection of a cocaine derivative close to the spinal column, at the emergence of the nerve trunks from the intervertebral foramina. According to Labat, paravertebral block is ordinarily performed at all heights of the spine, and each procedure is called by the name of vertebral segment to which it belongs. . . . Paravertebral block may be performed to produce anesthesia or relief from pain in the somaticovisceral part of the body, or a paravertebral sympathetic block for the treatment of peripheral vascular disturbances, e.g., Raynaud's disease or vasospastic disease of the acrocyanosis type. Paravertebral block may be used as a diagnostic measure. . . . There are only two contraindications for the use of paravertebral block—inexperience on the part of the operator, and the patient's idiosyncrasy to cocaine derivative. . . . Paravertebral injection need not become the exclusive province of any one specialty. However, the method should be employed by one who is thoroughly familiar with its technic, anatomic landmarks, and by one who is capable of recognizing and treating possible complications."

J. C. M. C.

NOBLE, ETHEL A.: *Refrigeration anaesthesia*. Canadian M. A. J. **58**: 5-10 (Jan.) 1948.

"My experience with refrigeration has been only in regard to its use for amputations. About two and a half years ago, the Civic Hospital in Ottawa was presented with a therm-o-rite electrical refrigeration unit. The machine though heavy was easily transportable on wheels. Power was obtained by plugging into any electrical outlet. This ran a motor which pumped the freezing fluid, consisting of 50% pure alcohol, through rubber tubing to two applicators which were strapped around the patient's leg. The first two cases were mid-thigh amputations refrigerated with ice by the original method. . . . Ten cases were refrigerated by means of the machine, two were amputations below the knee, the others mid-thigh. With the machine better refrigeration could be given the tourniquet area than with ice bags. . . . We found that the time required for complete anaesthesia of a thigh could be cut down from four hours to three, because we were able to maintain a consistently low skin temperature, one or two degrees above freezing. . . . When the operating room was ready the machine was taken along still attached to the patient in bed. . . . The proper tightness of the tourniquet makes for good refrigeration. . . . It was usual to give some sedative about half an hour before the application of the tourniquet. Morphine grains 1/6, and in the more debilitated patients we used 100 mgm. of demerol. . . . Of our cases that were given pentothal sodium with nitrous oxide and oxygen for psychic reasons, one was given cyclopropane, nitrous oxide and oxygen because the anaesthetic was incomplete, and eight had no additional anaesthesia. Following the amputation, the stump was refrigerated for two to three days.

This greatly lessens the amount of sedative needed by preventing pain. Here again the use of the machine was a big advantage and we tried to run it at about 60°F., which would keep the temperature in the stump slightly lower than room temperature. The claim of freedom from shock during operation was well substantiated. . . . There were five deaths in hospital, the earliest, the second day postoperatively and the latest after one month. . . . The thirteenth case deserves special mention. This was a mid-thigh amputation in a diabetic woman of 65 who was in good condition. It was an attempt to try out refrigeration by packing the leg in ice without the use of the tourniquet. At the Ottawa General Hospital where this was done, the experience with refrigeration anaesthesia had not been favourable. Of six cases one had died the third day, in two the healing was satisfactory, in two it was poor and in the sixth it was so bad that the patient finally died of sepsis following a secondary amputation under cyclopropane. . . . In spite of morphia and nembutal, the patient complained bitterly of the coldness of the pack. After an hour and a half when the distress did not appear to be lessening, we were about to take the whole thing off, when it was suggested we try small doses of intravenous pentothal. General body chilling occurred, the patient became blue and shivering and mouth temperature went down to 96°F. The pack was on five and a half hours yet there was not complete anaesthesia for the operation.

“This whole subject of refrigeration may still be said to be controversial because of the healing factor. Yet I am convinced it should hold a real place in surgery both as a therapeutic agent and as an anaesthetic.”

J. C. M. C.

VINING, J. A.: *Supportive Treatment During Anaesthesia*. Canadian M. A. J. **57**: 479-484 (Nov.) 1947.

“The surgeon has become more and more dependent upon the judgement of his anaesthetist for pre- and post-operative advice, in the treatment of his patient. The surgeon, however, still relies upon his anaesthetist chiefly for his skill in the administration of the anaesthetic and for his supportive treatment during the anaesthetic period. . . . Respiratory movements should at all times be under the direct observation of the anaesthetist. . . . The mechanical control of normal respiration depends upon a free airway and intact thorax. The vital capacity and tidal air are limiting factors. . . . The observations of skin colour and temperature provide information regarding the physiology of circulation and respiration. . . . The chief concern of the anaesthetist with regard to heat regulation during anaesthesia is its loss. . . . The mental state of the patient is important to the anaesthetist in its effects upon the other systems of the body. . . . In his supportive treatment during the anaesthetic period, the anaesthetist must direct his treatment to approach as closely as possible the normal physiological standards. His methods of control must follow his knowledge of physiology and pharmacology. In other words, he must follow his observations and must not be led astray by empirical thinking.”

J. C. M. C.

STEPHEN, C. R., AND CHANDY, J.: *Clinical and Experimental Studies with Myanesin; A Preliminary Report*. Canadian M. A. J. **57**: 463-468 (Nov.) 1947.

“In December, 1946, following an investigation of numerous a-substituted ethers of glycerol, Berger and Bradley reported on the pharmacological prop-