

1 cm. in diameter, and therefore insertion of needles must be accurate.

This type of block should not be used except by those who are experienced in regional anesthesia and who are in a position to carry out the procedure at frequent intervals. Satisfactory results are otherwise not likely to be obtained.

R. B.

BARTLETT, R. W.: *Bilateral Intercostal Nerve Block for Upper Abdominal Surgery*. Surg., Gynec. & Obst. 71: 194-197 (Aug.) 1940.

"Bilateral block of the seventh through the eleventh intercostal nerves in the midaxillary line combined with light gas inhalation constitutes an extremely safe and satisfactory anesthesia for upper abdominal operations on certain seriously ill patients presenting contra-indications both to ether and spinal anesthesia. It possesses all of the virtues of spinal anesthesia, such as complete relaxation and absence of pushing of intestines without any of the dangers sometimes associated with its use. Because of the relaxation, closure is rapid and the operation accordingly shorter. By the same token, approximation of the posterior rectus sheath and peritoneum is accurate and thus an important factor in the development of postoperative hernia is eliminated. For plastic procedures on the upper two-thirds of the abdominal wall, such as, repair of umbilical and incisional hernias, secondary closure subsequent to eventration, and closure of colostomy in the transverse colon, it has proved most useful. The technique of injection is so simple that failure to obtain anesthesia should be rare. The time required for administration of the anesthesia is no longer than that involved in giving a spinal anesthesia and the duration obtained is sufficient for the completion of any operation one is apt to be required to per-

form in the upper abdomen or upon its wall."

J. C. M. C.

SANKEY, B. B. AND RUSSELL, K. S.: *Anesthesia for Traumatic and Industrial Surgery*. Anesth. & Analg. 19: 169-171 (May-June) 1940.

"Traumatic and industrial surgical procedures are frequently surgical emergencies, and as such are rushed immediately to the operating theater with little or no preoperative preparation. These cases are more exacting upon the anesthetist than routine surgical procedures. However, recent advances in anesthesia provide a wider selection of agents and methods in this type of surgery. . . .

"Presence of shock demands immediate attention. The judicious delay of operation while treatment of shock is instituted undoubtedly decreases the anesthetic and operative mortality. If the operation cannot be delayed, treatment of shock may be instituted in the operating room. Intravenous fluid, transfusion, external heat and plenty of oxygen are all readily administered during the course of the operation. . . .

"The presence of food in the stomach offers a definite hazard to the patient undergoing inhalation anesthesia. . . . When time does not permit emptying of the stomach, regional or intravenous anesthesia should be considered in preference to inhalation methods.

"Proper premedication facilitates the administration of any anesthetic. Premedication for industrial and traumatic surgical cases with morphine and scopolamine has been very satisfactory in a ratio of 1 part of scopolamine to 25 parts of morphine. This is given 1½ hours preoperatively. . . . When immediate surgery is to be done, the intravenous injection of these drugs will produce their maximum effect in about 15 to 20 minutes. Occasionally, in chil-

dren or highly nervous adults, avertin or intravenous barbiturates for basal narcosis are used. When regional anesthesia is to be used, a short-acting barbiturate is administered one hour before the morphine and scopolamine.

"The use of *inhalation agents* will not be discussed except to stress the use of the endotracheal tube. No other method affords the anesthetist the assurance of a free airway regardless of the position in which the patient may be placed. The use of the Magill endotracheal tube facilitates the administration of the anesthetic and, more important still, assures the proper intake of oxygen and elimination of carbon dioxide. In the majority of extra-abdominal operations, cyclopropane is the agent of choice. . . .

"In recent years the introduction of two ultra short-acting barbiturates, evipal and pentothal for intravenous use, has increased the anesthetist's choice of agents for light anesthesia. These drugs are especially valuable when fire-proof conditions are desired. Since the dosage required to produce anesthesia with intravenous barbiturates is 50 to 70 per cent. of the lethal dose, the fractional method of administration should always be used. Recently the combination of nitrous oxide and one of the ultra short-acting barbiturates has been used to advantage when electrical equipment is to be used.

"When profound abdominal relaxation is required, spinal anesthesia may be employed in suitable cases. More conservative doses of the spinal anesthetic agent may be used when combined with a light inhalation anesthetic.

"Cases with advanced pathological conditions should be given the benefit of the least toxic drug, and one which alters normal physiology the least. . . .

"In certain procedures such as the

application of body casts or hip spicas, where little or no manipulation is required, the production of narcosis with fractional doses of morphine and scopolamine has been very satisfactory. . . . It should be stressed that a highly selective anesthetic program will serve the best interests of the patient and surgeon. Frequently, a combination of agents and methods will prove more satisfactory than the use of any one agent or technique for all procedures." Bibliography—2 references.

J. C. M. C.

DOUDNA, H. E., AND MECHLING, C. S.: *Thyroid Anesthesia; a Comparative Study*. South. M. J. **33**: 502-507 (May) 1940.

"This paper presents a comparative study of the anesthetics in one hundred thyroidectomies picked at random from the files of our local private hospitals and the State University Hospital. . . . In choosing the anesthesia for any thyroidectomy one considers regional anesthesia, some form of general anesthesia, or a combination of both. Regional anesthesia is not popular with the surgeons in our locality, and therefore we shall base our study on the results obtained with inhalation anesthesia combined in some instances with local infiltration of the field of operation. . . .

"There appears to be but little choice between a combination of sodium isoamylethyl alcohol, morphine and scopolamine, or pentobarbital sodium, morphine and scopolamine. Patients receiving either of the above combinations of drugs in suitable doses arrived in the operating rooms more nearly asleep than did those who were given only morphine and scopolamine. If morphine and scopolamine are given in sufficiently large doses to produce an equal degree of drowsiness and amnesia, undue depression of respiration and circulation is frequently the re-