Abstracts

tem of the inferior, posterior and superior edges of the bony rim of the meatus. This step anesthetizes the auricular branch of the vagus nerve. In the third step one infiltrates in front of the helix, about 3 cm. above the external auditory canal, first under the skin and then down to the periosteum. This injection anesthetizes the upper branches of the auriculotemporal nerve. In the fourth or last step the auricle is bent forward and the subcutaneous tissue at the junction of the auricle and the skull is infiltrated by a series of block injections along the entire length of the skin fold. This injection anesthetizes the great auricular nerve and the lesser occipital nerve. The great auricular nerve sends a branch through the auricular cartilage. It is this branch that supplies the skin of the lower and posterior part of the concha, and this area becomes quite painful if not anesthetized properly.

"Mistakes that have been observed in obtaining local anesthesia: 1. Failure to make injections into the anterior wall of the canal at the proper level. This does not place the anesthetic at the edge of the bony rim where the auriculotemporal nerve enters. 2. Injecting too deeply into the anterior wall. This may place the anesthetic in the posterior joint space or in the synovial cavity of the temporomandibular joint. 3. Failure to infiltrate first under the skin and then down to the periosteum." 4 references.

F. A. M.


Both conduction and general anesthesia have been used to control and to obliterate the impulses of pain. When the pain is obliterated by anesthesia there are altered functions of glands and viscera, blood vessels and heart, lungs, and skin. These by-products of pain control with anesthesia present a new horizon in therapeutics.

Since 1943, eighty-five patients with cardiac disease have been managed with continuous caudal and continuous spinal analgesia. There were no maternal deaths in this series.

Emergencies may arise directly as a result of the recovery period of spinal anesthesia. The angiospastic mechanism of the sympathetico-mimetic nerve impulses may again predominate. This has been observed in more than a score of cases in which, following spinal and caudal analgesia, the blood pressure rose to levels of more than 200 mm. of mercury systolic, headache developed, and increased venous pressure initiated a secondary collapse of the peripheral veins. This mechanism might prove fatal to a patient with heart failure.

Therapeutic nerve block has been utilized to overcome the immobility of paralytic ileus. In several cases peristalsis is immediately followed but in the recovery period the sympathetico-mimetic mechanism predominated with a more alarming degree of ileus than had been first observed. This would account for the cases of paralytic ileus which develop postoperatively after spinal anesthesia. These conditions should not be condemnation of nerve block, but rather an indication for the continued controlled application of the block for as long into the recovery period as necessary.

Thirty-five seriously ill and premoribund patients have been treated with caudal or spinal blocks. One patient was treated for ten days and six hours with continuous spinal therapeutic block anesthesia. During this
time her critical hypertension was reduced 114 times. Complete anuria followed sulfathiazole and penicillin treatment for lobar pneumonia in a 13 year old boy. He responded to continuous caudal anesthesia and made a complete recovery. Four children with acute nephritis were treated with continuous caudal analgesia in order to reduce arterial hypertension. When successful levels of analgesia were achieved a reduction of hypertension followed. Of the 35 patients, 10 died. The prompt recovery of several patients with acute pulmonary edema after all of the usual forms of therapy had failed could, undoubtedly, be ascribed to the blocks. More investigative work needs to be done with experimental renal clearance studies under various levels of block. 15 references.

F. A. M.


In the search for drugs suitable for intravenous anaesthesia many barbituric acid compounds were tried and discarded until Weise introduced Evipan in 1932. It was replaced by pentothal which was introduced in 1934. An ideal drug for intravenous anaesthesia probably should possess five cardinal features: (1) rapid and easy control, (2) a good margin of safety between the anaesthetic and danger dose, (3) blood concentrations compatible with safety should produce sensory and muscular paralysis, (4) rapid excretion without tissue damage, and (5) pleasant administration and recovery.

The short acting thio-barbiturates go a long way toward this ideal. The chemistry of these drugs is complex. Their distribution in the tissues is somewhat obscure. Respiratory depression is produced in direct proportion to the dose. There is a slight vaso-dilatation which quickly passes off when the drugs are excreted. There is a slight fall in the systolic blood pressure. There is no demonstrable effect on the liver and the kidneys do not seem to be seriously affected. There is no production of haemo-concentration and the absence of effects on metabolism, body fluids and circulation is in marked contrast to the effects of ether. The exact fate of the thio-barbiturates after injection is unknown. Contraction of the gut following administration of the drug may cause welling up of stomach contents with fatal results. Prolonged recovery after long surgical procedures with thio-barbiturates as the sole anaesthetic may be considered as a contraindication.

F. A. M.


"The objects of the present experiments were (1) to determine the effect of phenobarbital on the blood sugar level of insulinized rabbits, (2) to observe the tendency of such animals to go into convulsions, and (3) to note if the administration of insulin to rabbits altered their response to electrical stimulation. . . . The administration of both sodium phenobarbital and subconvulsive doses of insulin to rabbits causes the animals to convulse, lowers the level of blood sugar below that produced by subconvulsive doses of insulin alone, and prolongs the return of the level of blood sugar to a normal state. The administration of insulin to rabbits in sufficient amounts to bring these animals near the convulsive state does not alter their threshold of response to the stimulating action of a galvanic current applied to a suitable motor point on the skin, or that to the stimulating action of a faradic rectangular current flowing from the occiput to the mouth."

F. A. M.