drop method. The drawbacks of the method are that it takes time, fifteen to twenty minutes, to act and the technic is more difficult than spinal. Due to faulty technic, the solution may be injected into the subarachnoid space. Temporary shock sometimes results from injection.

The method has practically all the advantages of local, block and spinal anesthesia. There is no injury to the cord, or danger of the anesthetic solution reaching the mid-brain and important centers. There is little fall of blood pressure, vomiting is rare, retention of urine does not occur. There is no danger of meningitis or headache. The patients are more comfortable than with general anesthesia. The method is useful in emergencies and deserves greater attention than it has received in the past.

F. A. M.


Sixty operations for thoracoplasty were done under high extradural segmental block. Extradural puncture in the mid or upper thoracic region may cause damage to the cord and the method is technically more difficult. Proper care will avoid damage to the cord and practice and attention to details overcomes the technical difficulty. When the patients are restless and uncooperative, light oxygen and chloroform anesthesia has been given during the later part of the operation. This was necessary in only a few of the 60 patients. No unpleasant sensations are experienced by the patient following extradural analgesia.

Premedication consisted of nembutal gr. 3 two hours before operation followed by omnopon gr. 1/2, and seepolamine gr. 1/50 half an hour later. If the patient was not drowsy and if there was no undue respiratory depression, an additional injection of omnopon gr. 1/2 was given before he left the ward.

Amethocaine 1/000 or procaine 1/2 per cent in 0.84 per cent sodium chloride was the analgesic solution in most of the cases. In the others, nupercaine 1:600 solutions was used. According to the length of the back, 20 or 25 c.cm was the volume of solution used in each case. Adrenaline hydrochloride, three drops of 1:1000 solution, was added to the analgesic solution. Analgesia was produced over four to six spinal segments above and below the site of puncture. Brachial plexus block preceded the extradural block for first stage thoracoplasty.

Good abdominal relaxation follows extradural blocks with either 1:1000 amethocaine or 1:600 nupercaine. Paralysis of the intercostal muscles rarely occurs. The technique of extradural block is relatively difficult. Four methods of defining the space have been described.

There have been no failures to secure perfect analgesia in this series when a successful extradural tap has been accomplished. Ten per cent of the attempts resulted in failure to accomplish a successful tap. The method is superior to regional block or high subarachnoid block in many ways. From the experience in this series, the author is convinced that it is the method of choice for extensive operations upon the chest wall when general anesthesia is contraindicated. 5 references.

F. A. M.


After one hundred years it is well to examine what place ether still holds and to compare it with its closest rival, cyclopropane. Ether is superior to cyclopropane as a relaxant. For maintenance of anesthesia, ether, in the