
The field of surgery for the aged patient has been widened by the increased variety of useful anesthetic agents. In the preoperative estimation of the elderly patient it should be realized that one deals with an individual who is worn out. A person who has used up his reserve may have a normal or low blood pressure, an enlarged heart and only fair quality of heart sounds and thickened vessel walls. This type of patient can readily show severe shock. The thoracic cage is often fixed and the lowered respiratory exchange which results predisposes to postoperative pulmonary complications. The condition of the kidneys in elderly patients is important in the choice of the anesthetic. The high incidence of malignancy adds to the risk of operation on aged patients.

Short excitement periods are more frequent in patients over 60 years of age. Premedication should be chosen with the physiological effect in mind. Light doses of morphone, except in the presence of pain, should be used. Atropine controls secretions and stimulates the basal centres, thus reducing the depression caused by morphine. Hyoscine, in addition to the effects produced by atropine, produces a high degree of amnesia and as a rule has a good sedative effect. Demerol is useful for elderly patients since it depresses respiration less than morphone. A maximum dose of barbiturate would be a grain and one-half of nembutal for the elderly patient.

Chloroform increases the risk of anesthesia. The field of usefulness of ether has decreased as newer agents appear. Nitrous oxide is useful for minor surgery but anoxaemia should be avoided. Cyclopropane is probably the most widely used of all the agents for the elderly patient. Pentothal sodium should be given to the aged in initial small dosage with supplemental small fractional doses. Curare has simplified anesthesia in the aged. The continuous method of spinal anesthesia, using a small initial dose, has increased the usefulness of this type of anesthesia for the elderly patient. It is often difficult to insert a needle without trauma for caudal anesthesia in the aged patient. Refrigeration seems to have real value. 8 references.

F. A. M.


The purposes of this paper are to consider the indications for curare, to compare it with other agents, and to present experience with the use of curare (intocestrin) in 450 cases. Four groups of cases were studied. In the first group elective abdominal surgical cases were selected for the administration of curare. These were done to set up a standard for evaluation of the technic. The method, described by Cullen, of giving curare with a light general anesthetic was used. Pentothal sodium, nitrous oxide, ether and various combinations were given. Relaxation was found to be similar to that attained in spinal anesthesia. The relaxation was delayed in some cases so it was found to be more advantageous to give the curare as much as five to fifteen minutes before the time of expected relaxation. Varying degrees of respiratory depression and paralysis were experienced. When depression occurred the respiratory movements were immediately supported by the application of manual compression of the breathing bag.

The second group included cases in which a single-dose spinal anesthetic
for abdominal surgery was used. Curare was used to provide relaxation when the duration of the spinal anesthetic was not sufficient to complete the operation. General anesthesia was induced and maintained in a light plane. Curare was then given five to fifteen minutes before closure of the peritoneum or earlier if the surgeon required further relaxation. Few changes in circulation followed the use of curare in either of the first two groups of patients.

The third group of patients were poor-risks and required abdominal surgery. Light premedication was used, intravenous fluids were started and cyclopropane anesthesia was induced and maintained in the first plane of the surgical stage. Abundant oxygenation was provided. Small doses of curare were used until satisfactory relaxation was produced. Less than 50 mg. and as much as 150 mg. of curare was required. Although some of the patients in this group were moribund before the operation, there was no death during the operation or during the immediate postoperative period.

The fourth group was made up of patients who required endotracheal anesthesia. Cyclopropane or pentothal sodium was induced and curare was simultaneously administered in doses of 20 to 50 mg. Further doses were given every three or four minutes. Within eight to ten minutes the intubation was done with ease. There were some cases in which rhythmic breathing stopped, and there was cessation of breathing, interrupted with occasional jerky inspirations. Resistance to inflation of the lungs during this period indicated the presence of bronchial spasm.

The recovery period for all of the cases of all of the groups was generally brief and uneventful. Two patients showed postoperative respiratory depression, probably due to hypoxia during periods of shallow breathing. In one patient postoperative depression was followed by a fatal outcome. 17 references.

F. A. M.


A method for determining the effect of mechanical artificial respiration upon the circulation when the heart is no longer beating is described. Oxygen (used as a tracer substance) was introduced into the vascular system of animals immediately after death and movement of the tracer observed during inflation and deflation of the lungs.

It was shown that mechanical inflation and deflation of the lungs produces an actual movement of the blood column and that the blood can be circulated over the whole body without benefit of any heart action whatever. The use of heparin prevents clotting and keeps the blood in a fluid state. As a result, blood can be more effectively circulated and this increases possible survival time.

Those mechanical resuscitators employing positive and negative pressure were more efficient in circulating blood than were those employing only positive pressure and release or negative pressure and release.

M. F. P.


Fifty caesarean operations were done with anesthesia supplemented with d-tubocurarine. Atropine 1/100 gr. (0.65 mg.) was given one hour before operation. When the surgeon is ready the induction is carried out by an in-