

the presence of shock, and for elderly or debilitated patients. Cyclopropane appears to be the ideal anesthetic agent to be used with curare. Nitrous oxide and ethylene have been used but larger doses of curare are required than with more potent anesthetics and there have been cases in which marked respiratory depression resulted. When curare is used with ether it is advisable to use smaller doses of curare. The use of curare with pentothal is becoming more extensive. It must be remembered that with these drugs two respiratory depressants are being used. Bronchoscopies and esophagoscopies are easily done with this combination.

Curare has proved to be valuable in prolonging the relaxation when a spinal anesthetic has been of insufficient duration. For extensive operations a combination of curare, pentothal sodium and nitrous oxide has been used. Curare should not be considered a panacea to answer all problems of relaxation but it is a useful adjunct to anesthesiology. 27 references.

F. A. M.

BARNES, JOSEPHINE: *Pethidine in Labour: Results in 500 Cases*. Brit. M. J., 1: 437-442 (April 5) 1947.

Pethidine was used in over 500 cases in the Obstetrical Unit at University College Hospital between 1942 and 1946. Pethidine is known by a variety of names, among them: dolantin, dolantal and demerol. After preliminary tests pethidine was given full clinical trial by administering it to those patients in labor who appeared to require a sedative or analgesic. The dose used was 100 mg. given intramuscularly or subcutaneously and repeated when necessary. In many cases other sedatives and analgesics were combined with pethidine, the patients receiving "triline" or nitrous-oxide and air analgesia in the later stages of labor. Eight pairs of

twins accounted for 508 infants born of 500 mothers. A single dose of pethidine was adequate for the majority of labors. No maternal mortality occurred in the series. Dizziness, faintness, giddiness or numbness, sweating and slight retching were noted in 11 mothers.

Twenty-one of the 508 babies died but it was not felt that pethidine contributed in any way to these deaths. Signs of asphyxia at birth were noted in 55 babies. In the mothers of these babies it was found that 13 were delivered less than three hours after the last dose of pethidine, 4, three to four hours after, and 2, four to five hours after. The average time between the last dose of pethidine and delivery for the entire series was 6.74 hours.

Good analgesic was obtained in 55 per cent of mothers. Some failures may be accounted for by the fact that pethidine was given too late in labor. Some relaxation or relief of symptoms was experienced by 87 per cent of the mothers. No effect on uterine contractions was noted in 67 per cent; apparent increase in contractions in 23.3 per cent and contractions diminished in 8.7 per cent. Compared to a control series of patients the first stage of labor in primigravidae was seven hours longer in patients receiving pethidine. The forceps rate compared favourably with the control group. No tendency to postpartum haemorrhage was noted. Thirty-two patients who had cesarean section received pethidine premedication. There was no foetal or maternal mortality. 36 references.

F. A. M.

BAILEY, HAMILTON: *Impending Death Under Anesthesia*. J. Internat. Coll. Surgeons. 10: 1-10; 27 (Jan.-Feb.) 1947.

The expectation of death under an anesthetic is 1 per 1,000 when calcu-

lated on a very large number of cases from five teaching hospitals on three continents. A jar, containing resuscitative agents, sealed and labeled "Anesthetic Emergency Outfit," and kept in the operating room would help to reduce the delay which often follows emergencies during operation. The two fundamental types of emergencies during anesthesia are: (1) Blue asphyxia (primarily respiratory) and (2) White asphyxia (primarily cardiac). Cardiac massage may be accomplished by making an incision in the abdominal wall and applying intermittent pressure with one hand beneath the diaphragm and the other exerting counter pressure on the lower left costal margin. Nicholson's method is accomplished by inserting the thumb through a button-hole incision made behind the base of the xiphisternum. The heart can then be compressed between the thumb and the fingers beneath the diaphragm.

Of 40 cases in which cardiac massage was done by the author only 5 patients survived. These cases were reported in 1941. Since then the time formerly expended in performing artificial respiration and injecting adrenaline is no longer wasted. When the heart ceases to beat the preparations are immediately made for cardiac massage. While the anesthetist insures an unobstructed airway and applies amyl nitrite to the nostrils the precordial and epigastric areas are prepared. The right auricle is pricked with a needle. If the response to this stimulus is not immediate cardiac massage is undertaken at once. The head of the table is lowered. Artificial respiration is continued. When the heart starts beating the patient sometimes breathes spontaneously. The abdominal incision is closed only when it is certain that the patient is breathing without artificial aid.

Reports prove that cardiac massage

can bring back to life those whose hearts have ceased to beat under any form of anesthesia. Recovery has been reported when cardiac massage was continued for as long as twenty minutes. When blue asphyxia occurs the time limit for cardiac massage is increased because the cerebral mechanism is not deprived of blood as it is in white asphyxia. Injection into the bone-marrow by means of syringes is an excellent method of introducing a pint or more of fluid rapidly into a failing circulation. Since using cardiac massage immediately the author has had 3 patients who required this treatment. Each of the patients recovered. It appears that early anxieties and later complications that follow temporary cardiac cessation are proportionate to the length of time the organ is functionless. 14 references.

F. A. M.

BARRY, HERBERT, JR.: *Possible Methods of Controlling Dental Pain*. *Am. J. Orthodontics and Oral Surg.* 33: 401-406 (May) 1947.

Experiments were made to determine the relative temperature rises within teeth during the preparation of cavities by the use of burs and to determine the relation between thermal changes and pain associated with drilling. Dry, extracted teeth were used. The initial tests were inconclusive and will be repeated. There is evidence, on an empirical level, that control of temperature of the bur may be of importance in lessening pain during drilling. Other means of lessening pain should be considered. Distraction or suggestion may act in the same way as sedation or analgesia. Phenobarbital is one of the best medications prior to dental procedures. Confidence which the patient has in the doctor is an important element in the success of suggestion.

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