With a certain range of concentrations a linear relationship exists between the logarithm of the concentration of the local anaesthetic which was examined and the time at which plexus anaesthesia in frogs develops. When the intracutaneous wheal in guinea-pigs is used, a similar linear relation exists between the logarithm of the concentration of the local anaesthetic and an index expressing both intensity and duration of anaesthesia. The lines for β-eucaine, procaine and nupercaine, though parallel to each other, are not parallel to that for cocaine. It is suggested, therefore, to use procaine as a standard of comparison. It was observed that when adrenaline was added to procaine and the mixture was compared with cocaine by the guinea-pig method, the log dose-effect lines became parallel." 6 references.

J. C. M. C.

ROSENFELD, S. S.: *Paracervical Anesthesia for the Relief of Labor Pains.* Am. J. Obst. & Gynec. **50**: 527–532 (Nov.) 1945.

"Having performed such gynecologic operations as dilatation and curettage, amputation of the cervix, repair of the cervix, the Manchester operation, the interposition operation, and even vaginal hysterectomy under paracervical anesthesia supplemented by local infiltration and at times by rectal ether, it seemed to me that this form of anesthesia should prove effective in obstetrics. I therefore tried it and when the very first case proved satisfactory, I was encouraged to continue. . . . In this form of anesthesia, the local anesthetic is injected alongside the cervix, the aim being to anesthetize and thus block the sensory nerve fibers in the parametrium. This is easily accomplished by a bilateral injection of the anesthetic solution parallel to and alongside the cervix to a depth of from 3 to 4 cm. into the lateral fornices. . . . This series consisted of 100 patients. . . . Both nupercaine and Eucupin were much more effective than novocain from the standpoint of duration of anesthesia. Nupercaine 1:1,500 was as effective as the 1:1,000 solution and more effective than the 1:2,000. The higher concentrations of Eucupin were more effective than the standard or stock solution (Eucupin dihydrochloride 0.06 Gm., procaine hydrochloride 0.3 Gm., Ringer's solution q.s. ad 30 cc.). The longest duration of anesthesia, eight hours and six hours, respectively, was observed in two patients who were injected with 0.5 per cent Eucupin plus 1 per cent procaine and adrenalin. . . . An attempt to determine the average duration of anesthesia in each group studied yielded inconclusive data. . . . It is a simple matter to inject the solutions, and with proper technique and precautions it should prove safe and free from serious complications. . . . Uterine contractions are not inhibited and an appreciable percentage of patients deliver spontaneously. No cases of shock have been encountered nor have any alarming symptoms been noted." 5 references.

J. C. M. C.

SLOCUM, H. C.: *The Relief of Pain in Obstetrics: a Review of 1982 Consecutive Deliveries.* Texas State J. Med. **41**: 312–314 (Oct.) 1945.

"The analysis of 1982 consecutive deliveries has been made as to the effect of the various pain relieving drugs on the occurrence of asphyxia neonatorum. This work has been published from the obstetrician's point of view and is now being considered from that of the anesthetist. . . . The incidence of fetal asphyxia was increased with the administration of nonvolatile drugs in the early stages of labor. All inhalation agents used for spontaneous delivery compared favorably. The use of nitrous oxide or ethylene in-

creased the incidence of asphyxia when used beyond safe limits of potency. Nitrous oxide or ethylene used to safe limits and then supplemented by a more potent agent gave the most favorable results. Cyclopropane and other more potent inhalation agents increased the incidence in proportion to the degree of tissue saturation. Complications of pregnancy and labor, particularly those necessitating operative delivery, increase the incidence of fetal asphyxia. . . . Asphyxia neonatorum may be the result of the complications of pregnancy and labor. It frequently involves poor diagnosis and management of the existing conditions by the obstetrician. It often involves the misapplication of depressant drugs through the failure of the anesthetist and obstetrician to recognize the physiologic disturbances and changes involved in the progress of labor, thus acquiring the relief of pain at the expense of safety. The choice of an anesthetic agent is not as important as its proper administration and individualization to the existing obstetric conditions. It cannot be emphasized too strongly that only by close cooperation between the obstetrician and the anesthetist can the mother and child be safeguarded against the hazards of childbirth." 6 references.

J. C. M. C.

ALLEN, FREDERICK M.: *Intravenous Obstetrical Anesthesia; Preliminary Report,* Am. J. Surg. **70**: 283–290 (Dec.) 1945.

Adapting a procedure used by Lundy and by the Canadians Gordon and McLachlin, the author has set out to demonstrate to his own satisfaction that procaine has a selective affinity for tissues which are inflamed or whose capillaries are otherwise abnormally permeable, when the drug is administered intravenously. In his series of cases, Allen has achieved two grades of analgesia. One is a mere numbing of peripheral sensation which is considered adequate in the second stage when pain is not too severe. Concentrations of 0.8 per cent procaine given usually at about 0.5 to 3 cc. per minute were enough, and the guide to the upper limit of dosage was the absence of subjective symptoms of dizziness or confusion. Rapid flows of 5 to 12 cc. per minute were used for the severe pain of actual delivery and repair. At these rates, fogging of consciousness was the rule. There were a few minor convulsive manifestations with these rapid flows, easily stopped by decreasing the rate of flow sharply. Prevention of these motor phenomena with prelinary barbiturate medication is not conclusively proven.

W. A. C.

ADAMS, R. C.: *Principles of Intravenous Anesthesia with Pentothal Sodium.* S. Clin. North America. Mayo Clinic Number 788–791 (Aug.) 1945.

"Many of the questions which are asked relative to the use of pentothal sodium anesthesia reflect the fact that the broad principles of its use are still not thoroughly understood. . . . Intravenous anesthesia is linked closely to both the principles and practices which govern the administration of anesthetic agents in general. Most of the difficulties and fatalities associated with intravenous anesthesia have risen from failure to appreciate this fact. . . . In the first place, pentothal sodium is a barbiturate. Although it has the desirable characteristic of being ultrashort acting, due to its rapid destruction in the body, nevertheless it exhibits many of the characteristics common to derivatives of barbituric acid in general. . . . Induction of anesthesia should be slow. . . . It is almost impossible to estimate beforehand how much of the barbiturate will be required to produce the optimal level of anesthesia for a particular patient. Consequently there is