

frequent pathology of the parturient serve to complicate the decision. Since the introduction of clinical anesthesia in 1842, every known anesthetic agent has been tried in obstetrics. Many have been discarded as unsuitable, others, though undesirable in some respects, are in use today. . . . The anesthesia of choice for obstetrics in our opinion is continuous caudal and the future development along this line is awaited expectantly. For inhalation we choose nitrous oxide analgesia until terminal delivery is possible and then cyclopropane supplement."

J. C. M. C.

MELICK, D. W.: *Refrigeration Anesthesia*. Am. J. Surg. 70: 364-368 (Dec.) 1945.

The author compares the results in amputation of extremities under refrigeration anesthesia as conducted by the surgeon, with a comparable group where anesthesia with four other methods was conducted by skilled anesthesiologists. Twenty-three had refrigeration; seventy had general anesthesia with cyclopropane, nitrous oxide or pentothal, or under spinal anesthesia. The mortality rate for the refrigeration group was 17.3 per cent and for the other group 18.4 per cent. It was tentatively concluded that well managed anesthesia by any method should be satisfactory, and that the improvement in results in the past few years could be attributed exclusively to changes in anesthetic methods. The author also believes that tourniquets are not essential to good results with refrigeration, inasmuch as the usual arteriosclerotic or diabetic patient has very sluggish circulation in the legs. The tourniquet adds little, and may damage the tissues at the level of amputation. Refrigeration was found to bring about little benefit for the detoxification of infected, gangrenous limbs.

W. A. C.

WALKER, B. S., AND DEROW, M. A.: *The Antagonism of Local Anesthetics Against the Sulfonamides*. Am. J. M. Sc. 210: 585-588 (Nov.) 1945.

"The inhibition of the antibacterial action of the sulfonamide drugs by procaine ('novocaine'), the most widely used of the local anesthetics, has been clearly demonstrated by Peterson and Findland. . . . At the request of Dr. C. W. Sondern, of the White Laboratories, Inc., certain substances which proved or putative local anesthetic action were studied by us with regard to their activity as sulfonamide-antagonists. Other substances . . . were simultaneously investigated to serve as controls. The present report deals with these local anesthetics and other substances. We have repeated, in most cases confirmed, and in some cases extended the work of other investigators, and in addition presented data on a few substances not previously studied. . . . Our procedure was based upon the method used by Peterson and Findland. Sulfathiazole (0.2 ml. of 0.002 molar solution) was mixed with equine blood (0.5 ml.) and a suspension (0.1 ml.) of a known number of organisms (hemolytic streptococcus, N. Y. 5 strain, or in a few experiments pneumococcus Type III). To this was added the local anesthetic or other drug under investigation in known molar concentration and in a volume of 0.1 ml. Under these conditions the molar ratio of sulfathiazole to 'inhibitor' could easily be calculated. The only unmeasured variable in this system was the amount of inhibiting substances in the blood. . . . The inhibitory effect of procaine has been found exactly comparable, mol for mol, with that of p-aminobenzoic acid upon sulfathiazole. O-aminobenzoic acid and m-aminobenzoic acid are without inhibitory effect upon sulfathiazole. Three derivatives of m-aminobenzoic (3-amino-4-hydroxymethylbenzoate (orthoform, N. N. R.), 3-