BOOK REVIEWS

Chirurgie du Coeur (Heart Surgery). Papers published under the direction of I. D'ALLAINES. Paper, Pp. 346, 76 figures. Paris, L'Expansion scientifique française, 1950.

This collection of papers from the heart center at the Hôpital Broussais in Paris gives an excellent review of the present status of cardiac surgery and the experience of the different authors in the surgical treatment of 361 cases of cardiac disease (202 cases of tetralogy of Fallot or other congenital defects, 40 cases of persistent ductus arteriosus, 10 cases of coarctation of the aorta, 14 resections of the pericardium, 11 resections of the cardiac plexus for anginal pains, 55 ligations of the inferior vena cava for severe cardiac failure and 19 anastamoses between the plumonary and the azygos veins for acquired mitral stenosis with pulmonary edema). The discussion of the surgical problems involved is most interesting. The formidable risk involved as well as the spectacular, although temporary, relief offered by some of the procedures for acquired cardiac disease has impressed this reviewer. This review, however, will be limited to sections dealing with anesthesia.

Dr. du Bouchet is the author of most of these sections, and she reviews 353 of the previously mentioned operations. She emphasizes the need for more than adequate oxygenation at all times—starting with the routine preoperative administration of oxygen by tent or mask. In children, induction is by cyclopropane with sufficient ether added to counteract the vagotonic effects of cyclopropane and to allow unhurried intubation (tube without cuff). This reviewer does not know whether the anesthetic "pomade" used for lubrication is an oily or a water soluble substance, and no remarks about changes resulting from aspiration of fatty compounds are found. Anesthesia is maintained with oxygen and small doses of curare without any further addition of ether or cyclopropane. The difficulties of properly evaluating the anesthetic stage and plane in this combination of light anesthesia and curarization are discussed. The author prefers assisted respiration with pressure of 4 to 10 mm. of mercury to Guedel's apneic technic, because it seems to interfere less with an already impaired circulation. The lung is inflated every twenty to thirty minutes and whenever cyanosis or arrhythmias develop. Adequate premedication, cooling of the canister, the patient and curare all decrease the need for oxygen.

Dr. du Bouchet observed 3 cerebral accidents in her first 50 operations for tetralogy of Fallot and none in the last 150, since she changed from controlled to assisted breathing and replaced cyclopropane for maintenance with small doses of curare. More adequate oxygenation seems to her the explanation. Continuous electrocardiographic tracings during the surgical procedure reveal impending cardiac disturbances before any clinical signs can be observed. Adequate oxygenation and intravenous administration and local application of procaine

are most helpful in the prevention of arrhythmias.

The treatment of cardiac arrest on the operating table is discussed; the advantages of positive pressure breathing, with or without Helium, over endotracheal suction in the treatment of pulmonary edema are mentioned. Spinal anesthesia for this same complication has been tried with considerable relief of dyspnea. It has proved less satisfactory for the ligation of the inferior vena cava, for which paravertebral block with some form of "sleep" (nitrous oxide) was preferred. All these decompensated patients are extremely sensitive to pentothal and as little as 50 mg. produced prolonged hypnosis.

A chapter by Drs. Latscha and du Bouchet presents 10 series of electrocardiograms in their relation to the surgical and anesthetic procedures. It should be carefully read by anyone who uses endotracheal anesthesia, especially that portion concerned with the effects of intubation and manipulation upon the cardiac rhythm.

The printing, the paper used and the pictures are superior to the average French scientific publication, and the misspellings of non-French names and titles less than anticipated.

It is hoped that Dr. du Bouchet will provide an English translation of her papers for her many American friends. It would make profitable reading.

E. GEORGE BEER, M.D.

The Physiological Basis for Oxygen Therapy. By JULIUS H. COMROE, JR., Professor of Physiology and Pharmacology, Graduate School of Medicine, University of Pennsylvania and ROBERT D. DRIPPS, Professor of Anesthesiology, University of Pennsylvania, Price $2.00. Pp. 85. American Lecture Series. Springfield, Ill., Charles C Thomas, 1950.

The authors state in the introduction: "The purpose of this monograph is to emphasize the rational, physiological basis for oxygen therapy. It is not to be regarded as a technique book." The purpose has been admirably fulfilled in a brief, concise and not too technical manner. The reader desiring more detail may consult the bibliography which contains 100 references. The contents consist of: (1) a 17-page discussion of the effects on normal subjects of breathing oxygen, (2) the etiology, diagnosis and therapy of anoxia, (3) oxygen inhalation in conditions without anoxia, and (4) possibilities of harm from inhalation of oxygen. Anoxia quite properly occupies the central theme of the monograph and is explained in a particularly lucid manner.

The authors have a wide background of both clinical and investigative experience in the field reviewed. Anesthesiologists seeking a modern and reliable review of this subject should find the book a useful addition to their libraries.

JOHN C. SCOTT, Ph.D.