

BOOK REVIEW

CURRENT TECHNIQUES IN EXTRACORPOREAL CIRCULATION, 19 Chapters, Edited by M. I. Ionescu and G. H. Woller, 1976, Butterworth and Co. Ltd., London. \$45.50, 173 figures, 57 tables and 913 references.

exitus acta probat

The Latin phrase above is one of the many preceding each chapter collected by the editors in the last two years and perhaps reflects the intent of the book. The phrase translates "the result justifies the action." *Current Techniques in E.C.C.* is a practical approach to extracorporeal circulation with the theoretical basis described. "Empirically this is what we have found to provide good patient care, here is the rationale and here are our results" is the common theme of most of the notable contributors such as: E. B. Kay, M.D. Bramson, J. J. Osborn, F. Gerbode, D. C. McGoon, H. B. Shumaker, D. B. Effler, L. T. Bonchek, A. Starr, J. D. Hill, W. P. Cleland, D. Bregman, and W. J. Kolff, (to mention a few). These physicians wrote on topics including preoperative care, anesthesia and post-operative care of the surgical patient needing extracorporeal circulation, intracardiac surgical procedures for infants, the use of deep hypothermia with circulatory arrest, operations upon the thoracic aorta, protection of the myocardium, blood loss and functional disturbances following extracorporeal circulation and the hematological, microbiological and mycological aspects of open heart surgery. Chapters on techniques of prolonged extracorporeal oxygenation for pulmonary insufficiency, bubbler and membrane oxygenators, intra-aortical balloon counterpulsation and future developments and potential applications of extracorporeal circulation are presented also.

via trita, via tuta

"The beaten path is the safe path" is another theme arising from *Current Techniques in E.C.C.* Each chapter's authors have done some compiling and referencing of the literature and theories pertinent to a specific technique much like the contributors to Norman's *Cardiac Surgery* but much more superficially. Some chapters in this book take on a familiar form that Galletti and Breecher employed in *Heart-Lung Bypass* such as Chapter 9: "The technique of intracardiac repair in infancy using deep hypothermia with circulatory arrest and limited cardiopulmonary bypass," in which the pro's and con's of the three commonly accepted means of inducing deep hypothermia and their anesthesia regimen are presented. Similarly Chapter 11: "Functional disturbances following extracorporeal circulation support in cardiac surgery," divides the body into organ systems and treats them methodically. *Current Techniques in E.C.C.* is more clinically oriented than *Heart-Lung Bypass* and demands a greater entry knowledge level of the reader.

ex umbra in solem

"From the shadow into the sun" ... *Current Techniques in E.C.C.* is a newcomer to the paucity of books devoted exclusively to extracorporeal circulation and can offer the perfusionist a refreshing source for some not well publicized topics such as the deleterious effects of the blood gas interface and foreign surfaces of the extracorporeal circuit, fibrinolysis, D.I.C., platelet kinetics, identification of infectious hazards in the open heart patient's course through the hospital, comparison of oxygenators on the market until two years ago and organ function and damage accompanying extracorporeal circulation. It is appropriate to find Bregman's review on intra-aortic balloon pumping as a chapter in a book on extracorporeal

techniques. Bregman's chapter is perhaps the most extensive and inclusive on the topic in existence.

As with most books directed at extracorporeal circulation, the preoperative, prebypass/operating room, and immediate post operative course and management of the patient are well treated but there is a gap in the content—practical management of the patient during bypass. Most of the authors refer to problem—decisions such as the best acid base status to maintain during hypothermia or the best technique to rewarm a patient or temperature gradient to use without offering numbers or hard facts. The practical aspects of the biophysics of extracorporeal circuit components, hemodynamics of administering bypass, mechanics of oxygen transport and acid base regulation during bypass are rapidly covered or missing from this text. Appropriately physicians would not be writing on the former topics.

In conclusion, *Current Techniques in Extracorporeal Circulation* is a positive step toward creating a single volume

attempting to standardize current techniques and recent developments in extracorporeal circulation. However, not until perfusionists take a more active role in publicizing their numerous techniques and underlying rationales will literature exist that meets the specific needs of practicing perfusionists.

sapiens qui prospicit

"Sensible is the one who looks ahead" ... This text will be interesting and educational reading to the experienced perfusionist. The book's prohibitive price and the high entry-level knowledge required to read it are barely offset by the excellent reference listings. The book was predominately written by physicians for physicians and its purchase will only be justified for the perfusionist who wishes to look past the pump run and appreciate the many clinical ramifications of E.C.C. The up to date text that covers well the intra-pump run period is still absent from the publishers' repertoire especially with the high standards Galletti and Breecher originally set with their well-referenced work.

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