Parenteral Alimentation in Surgery; With Special Reference to Proteins and Amino Acids. By Robert Elman, M.D.

Harold R. Kelly
Too frequently it is considered an enemy rather than an essential to normal metabolism. For example, it is a precursor to bile acids, a precursor to steroid hormones, a regulator of cell permeability, an insulator for axons, and perhaps has other important functions. Just why cholesterol is found within the walls of arteries in certain subjects and may be entirely absent in others is for future investigation to decide.

All indications support the assumption that cholesterol itself is not the only factor that causes arteriosclerosis. It is entirely probable that certain metabolic processes that may primarily have no direct relationship to the ingestion or synthesis of cholesterol, or even to blood cholesterol levels, may be influential in causing cholesterol to be deposited within atherosclerotic areas in arterial walls. It is obvious that before much progress can be made in the prevention or treatment of arteriosclerosis, many of these present unknowns must be investigated and solved.

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BOOK REVIEW


Parenteral alimentation may be ranked as a major contribution in medicine along with aseptic surgical technic or anesthesia. This book deals with parenteral feeding of nutritional substances, but excludes drugs, sera, and therapeutic agents. A brief history, including many failures, is given of parenteral alimentation and a good outline of the work done in the present century.

Although the title of the book might suggest its value only in surgical cases, this discussion is just as applicable to medical as to surgical patients.

A comprehensive study is made of water and electrolyte needs, including differences between water and salt needs, clinical manifestations, acid-base balance, and daily requirements. Caloric needs and vitamin needs are likewise adequately considered, including therapeutic application.

A large section of the book is devoted to a study of protein needs, clinical manifestations of deficiencies, and methods of maintaining nitrogen balance by parenteral administration. A chapter is devoted to clinical manifestations of protein deficiency, acute and chronic. Two chapters are given to methods of parenteral protein administration; one is on plasma and blood transfusion, another on amino acids and hydrolyzed protein. Much of the success in administering amino acids has come in recent years, the author being one of the workers in this field.

The author concludes with summarizing chapters on a practical program for parenteral alimentation and clinical results. He is not unmindful of the fact that there is much to be learned yet in producing a more effective protein product for parenteral alimentation.

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