
Preface

Patient interaction, problem analysis, technical challenges, and the satisfaction associated with a successful result make the practice of surgery an exciting and fulfilling profession. For us, the milestone developments in reconstructive surgery that have marked the past several years have increased our enthusiasm. Our overriding interest in anatomy was pivotal to our decision to enter the field of surgery. Over the years we were afforded the unique opportunity to indulge this passion and apply our anatomic research findings to flap design for reconstruction of complex wound defects. Our first attempt to define vascular pedicle size and location in 1972 evolved from our interest in applying microvascular principles to flap transplantation. Even at this early date, we were transplanting muscle flaps using microvascular techniques in our laboratory. The overwhelming success and reliability of standard muscle transposition for wound coverage and defect reconstruction resulted in a greater emphasis on vascular anatomy for flap transposition. These studies and the resulting anatomic data that form the basis of safe use of muscle and musculocutaneous flaps in reconstructive surgery were the focus of *Clinical Atlas of Muscle and Musculocutaneous Flaps* published in 1979.

The growing appreciation of the value of muscle and musculocutaneous flaps for reconstructive surgery paralleled the increasing awareness of the tremendous potential of microvascular transplantation for precise defect reconstruction. Initially, microvascular muscle transplantation was applied in reconstruction of lower third leg defects; its applications were subsequently extended to the head and neck and breast. In our second text, *Clinical Applications for Muscle and Musculocutaneous Flaps*, published in 1982, we compared the results of standard flap transposition and microvascular flap transplantation for wound coverage and defect reconstruction. By this time the experience gained with these reconstructive approaches permitted the introduction of a systematic approach to defect analysis in which the relative merits and complications of reconstructive options for all body regions were addressed.

Historically, the skin and soft tissues adjacent to the wound or defect were considered the first choice for reconstruction. However, inadequate and damaged tissue at the wound edge restricted the use of local tissue, forcing us to evaluate distant tissue as a viable alternative. The more recent introduction of tissue expansion has, however, renewed interest in the use of local tissue. Initially, expanders were used at the site of the mastectomy defect to recruit the remaining skin envelope for both immediate and delayed breast reconstruction. Over time potential applications for tissue expansion in other body regions, particularly the head and neck, became apparent. Tissue expansion has solved the problems of matching skin color and thickness, which often detracted from the aesthetic result.

Reconstructive Surgery: Principles, Anatomy, & Technique further defines the anatomy of the available flaps based on current knowledge and technique. As in our earlier books, most of our data are derived from our studies in the anatomic laboratory, where the vascular anatomy of each flap was carefully studied as well as its potential for transposition and microvascular transplantation. In addition, flap modifications have been evaluated and applied clinically to find successful solutions to complex reconstructive problems. Our anatomic studies have heightened our appreciation of the elegance of the human anatomy and increased our commitment to improving our reconstructive results. Only through these studies can we confirm published data, refine existing techniques, and develop new flap designs.

Although verbal and graphic textbook descriptions cannot take the place of observing the anatomy during dissections, every effort has been made in this book to accurately depict the anatomic characteristics of tissue sources for reconstructive surgery. We hope that the reader will share in the excitement that has characterized reconstructive efforts in the past decade and will build on the anatomic lessons provided herein.

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