
Free Flaps in Head and Neck Reconstruction

Raul Pellini • Gabriele Molteni
Editors

Free Flaps in Head and Neck Reconstruction

A Step-By-Step Color Atlas

 Springer

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To Pasquale, dear friend and colleague

Foreword

Development of reconstructive surgery focusing on free flaps in head and neck oncology led to incredible improvements in terms of indications as well as oncological and mostly functional results in the last decades.

The present Atlas is the final expression and synthesis of three important surgical schools with many years of experience in this field. This book is proposed as a step-by-step manual that, based on many years of shared surgical experience, displays to the scientific community the best know-how of the involved teams.

The editors, even if still relatively young, play a primary role in the scientific community thanks to their commitment, passion, international experiences in the field of reconstructive surgery. They represent a brilliant example not only for their high professionalism but also for the way they always deal with this complex theme, with correct therapeutic choices, multidisciplinary approach, and teaching young doctors to improve.

I am sure this book will soon become a cornerstone for every surgeon who wants to approach a complex argument as the head and neck reconstructive surgery.

Livio Presutti

Foreword

It is with great pleasure that I write this foreword to the compendium of surgical anatomy of the revascularized free flaps, written by Dr. Gabriele Molteni and Dr. Raul Pellini. For many years, I have been collecting and writing books on anatomy and surgical techniques, combining my passion for head-neck surgery, my academic commitment as Director of the Graduate School in Maxillo-Facial Surgery at the University of Verona. I have known Gabriele personally for many years and I appreciate his surgical talent, his precision in work, and his humanity towards the patient. After training at the school of Otorhinolaryngology of Modena directed by Prof. Livio Presutti, he joined my reconstructive team enriching it with his own presence. Considering Dr. Molteni and Pellini's skills and great passion for their work, I believe that this compendium has all the characteristics to be an important element in the formation of a new generation of microsurgeons. The images and the high quality of the intraoperative photographs will be a valid help for all the students, the doctors in training, and the specialists who wish to deepen their knowledge in this subject. The knowledge of anatomy, precise and careful dissection, preservation of structures and their functions are dogmas that must accompany every doctor who looks at reconstructive microsurgery, and this book contains each of these concepts. The excellent illustrations allow a clear and precise understanding of the complex topographical relationships between muscles, vessels, and nerves and guide the surgeon step by step in the dissection of the most important revascularized flaps, useful for the reconstruction of the head-neck area. This book should be a valuable resource in the library of every trainee and can be a good guide for all fellow surgeons who practice this discipline.

Pier Francesco Nocini

Foreword

Nowadays, surgical removal of head and neck cancer very often requires reconstruction. In the last 40 years, the limits of surgical ablation have been progressively extended by the initial introduction of pedicled flap followed by microvascular free tissue transfer. This new method has allowed an improved reconstruction and cosmesis as well as functionality.

Many different free flap solutions have been proposed, all of them based on the concept that any artery supplies the vitality of a specific territory and its homologous transplantation to a different site allows it to transfer human tissue from a site where its loss is less significant to another site where tissues are needed.

Raul Pellini has worked close to me for 20 years, and progressively he has increased his qualification and skill in HN microvascular free tissue transfer, becoming one of the international leaders in this branch. Gabriele Molteni has also dedicated many years to this field.

It is important and has to be their mission to transfer this knowledge to young doctors who are entering this field.

Many simple and composite flaps have been described considering the donor site morbidity, the shape of the defect, the different type of tissue removed and that have to be replaced as well as the patient's general and local condition.

Mandatory steps in this surgery are the knowledge of the anatomy of the donor site, especially focused on vascular supply, flap harvesting, vascular implant with its peculiarity, insert and integration of transferred tissue, and advanced monitoring and late follow-up.

In this book, young surgeons who fell in love with this type of surgery can find all the aspects of these techniques helpful in order to have the necessary guide to practice and improve these methods.

Moreover, several internationally renowned experts have been included in the completion of this book.

It has been a great pleasure and honor for me to have the opportunity to write a foreword to this book, and I am sure that all the efforts of Raul and Gabriele will be recognized through the advantages of lecturers.

Giuseppe Spriano

Preface

The mind is like a parachute. It only functions when it is open

In surgery, open mind means finding new ways to do old things. Microvascular techniques are nowadays a well-established method, and free flap reconstruction in head and neck surgery spread all over the world in the last decades.

In the era of new technologies and improvement of radiation therapy and new target therapies, the role of surgeons remains pivotal in the treatment of head and neck cancer. Nowadays, H&N surgeons are dealing more and more with previously irradiated patients and second or third primary tumor. In this scenario, free flaps remain the cornerstone of reconstruction due to their versatility and optimal vascular perfusion in a fibrotic contest.

Reconstructive surgeons are growing in number, and many books have been written on this topic. Dissection courses are mandatory before approaching this difficult surgery that require knowledge of 360° anatomy and also of microvascular techniques.

A practical and comprehensive step-by-step atlas with very detailed pictures from human bodies that can teach how to harvest a flap for head and neck reconstruction is not easy to find. Often, some surgical steps are lacking, and young surgeons at dissection course need more sources to proceed with flap harvesting. It is for these reasons that we start thinking about writing an atlas with the most detailed pictures of all surgical steps in harvesting free flaps for head and neck reconstruction: a book that should be comprehensive, clear, and easy-to-use for everyone independently from his level of experience in this field.

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