Cerebrovascular and Endovascular Neurosurgery

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Editors

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Complication Avoidance and Management

Springer

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I dedicate this book to all that have helped me become better:
To all the patients and families who have taught me how to become a better physician and surgeon.
To all my mentors, colleagues, and authors of this book who have instilled in me the profound desire to forever learn and never stop seeking what is best for my patients, thus making me a better student of medicine.
To my closest friends who have grounded me and helped me grow to become a better colleague and partner.
Most of all, to my parents and brother, my in-laws, my dears, Cindy, Rachel, Laura, Michelle, Julie, (and yes, our cats and guinea pigs), for the constant, unconditional support that makes me a better person.
All that I am is because of all that you are.

C.J. Prestigiacomo

Firstly, to my patients and their families for providing me with a clarity of purpose.
To my parents and grandparents for the life pearls and setting me on the path.
To my in-laws for their gentle wisdom and the most precious of gifts.
To my students, residents, fellows, and colleagues for helping me practice the art.
And of course to my dearest Sedna, Ronan, and Gita whom I hold above all things.

C.D. Gandhi

Preface

Physicians and surgeons are human. We make mistakes. Patients are harmed by what we do and by what we do not do. Unintentional as it may be, it nonetheless has its consequences to the patient, the family, and to you. The one element that everyone can find solace in is that, hopefully, every mistake is a one-time event. It happens, we learn from it, others learn from it, and it never happens again.

In the event of a complication, the proceduralist will review what happened, first and foremost internally. In most cases, the error is identified and the steps to avoid such an error again are defined. Sometimes this occurs with the aid of an external forum of colleagues and peers. On occasion, the proceduralist will reach out to a mentor or partner and discuss the case in broad terms to gain insight into the events or perhaps garner wisdom from the mentor's prior experiences. In so doing, the proceduralist not only learns from his or her own errors but also gains the wisdom of his or her mentor in an attempt to avoid making similar errors in the future.

This is how this book was born.

We see this book as a venue for members of the cerebrovascular community to share their experience and expertise. Most importantly, it is a venue for the dissemination of the many nuances in complication avoidance and complication management for some of the most difficult procedures that are performed for cerebrovascular disease.

The book is divided into four major parts, each with a specific focus. The first part provides the reader a detailed view of what a complication is, what it is not, and the general principles in formally assessing and reviewing complications, adverse outcomes, and errors. It is meant to provide a fertile landscape for each reader to begin a formal approach to analyze complications within their respective institutions and within their own practice. The second, third, and fourth parts of the textbook respectively describe the technical nuances of specific surgical, endovascular, and radiosurgical procedures for vascular diseases of the central nervous system and head and neck. These chapters serve as the central focal point for the book. Each chapter discusses the methods for complication avoidance and complication management. The reader thus is able to gain valuable knowledge and experience from experts in the field and in so doing reduce the frequency of poor outcomes in his or her practice.

Complication avoidance and complication management requires teamwork and communication. A very unique and helpful feature of this textbook is the presence of checklists for procedures and for complication management in the "techniques"

chapters. These checklists are made to be freely duplicated or modified and incorporated into an emergency procedures binder for the operating room, the endovascular suite, or the radiosurgery center. By turning to the specific checklists and reviewing them with the team prior to the procedure, the team gets "prepped and primed" for anything that may happen. The presence of a Table of Complication Avoidance and Management Principles also provides a necessary summary that enhances the team's preparation.

We should never forget our complications or those to whom it happened. We should use the experience to strengthen us and make us better. It is our hope that this textbook will help the reader improve patient outcomes through a greater understanding of the nuances of all neurovascular procedures. It is our hope that the checklists and tables will become a living document for each institution, dedicated to improving communication and teamwork among the many disciplines that care for these complex patients. It is our hope that this textbook will help all of us to decrease complications in our patients and help us to continue striving to do no harm.

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