Book review

The Craniotomy Atlas by Andreas Raabe (ed), Berhard Meyer, Karl Schaller, Peter Vajkoczy, Peter A Winkler

237 pp., 100s of illustrations (colour photographs and drawings), hardback with e-book access

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31 contributing authors from Europe

100s of colour figure and photographs

English language

9 chapters

Clear table of contents and index

Original text

Thieme have published The Craniotomy Atlas, an attractive hardback book that also includes a free e-book version. The editors Andreas Rabbe, Bernhard Meyer, Karl Schaller, Peter Vajkoczy and Peter A. Winkler have engaged contributions from 31 authors across Europe to provide their expertise on performing standard and extended craniotomies. The book consists of 9 chapters and is an evolution of the ‘Frankfurt craniotomy course’ which has been running since 2004. The editors recognised that despite craniotomy being the workhorse of cranial neurosurgery, there were wide variations in technique and no single source describing the overarching principles and concepts. Most neurosurgery residents learn craniotomy techniques from their trainers but often the underlying rationale for safe patient positioning and optimising the ergonomics of the operating positions are poorly taught. Instead, trainees often learn by a process of diffusion of knowledge and this book therefore represents an excellent compendium for the trainee neurosurgeon. Chapter 1 deals with the basic principles of craniotomy and positioning and helpfully describes some of the pitfalls since there is no doubt that a well-placed and performed craniotomy is the foundation for a successful cranial procedure. There is a short section highlighting the importance of good positioning for the ergonomics of the operating surgeon, which is essential in long procedures. In an era where image-guidance is standard in most neurosurgery departments, it is refreshing to see that chapter 2 describes cortical anatomy and landmarks, with an excellent overview of the underlying fibre tracts on MRI. Chapter 3 follows nicely and covers convexity craniotomy with a description of how to localise the craniotomy without the use of neuro-navigation. The inside-out approach is described whereby the craniotomy is planned in relation to the location and depth of the intracranial lesion, i.e. plan to corticotomy, durotomy, craniotomy and finally the skin incision. The subsequent chapters 4 to 9 describe progressively more complex craniotomies starting with the midline craniotomy, all the way through to extended skull base techniques and approaches to the orbita. Each craniotomy is described in a clear step-by-step manner with a combination of annotated colour photographs and detailed colour figures. At the end of each set of craniotomy illustrations there is a short checklist of the key points.

In summary, this is the only book in the literature dedicated solely to the craniotomy. In an era of online video content showing neurosurgery operations, this book has found a niche in the market. In addition to 100s of detailed colour photographs and drawings, the authors have provided excellent descriptions of each step, including the rationale behind their technique – something that is often lacking in online videos. Although the book is aimed at trainees, it also serves as a useful reference guide to more experienced neurosurgeons. Indeed, is it interesting to read about the variation in techniques the authors describe, for example, the section on aesthetic considerations and different preferences for wound closure and dressings. The editors humbly acknowledge that the book represents a collection of craniotomies based on their experience and opinion, and that it is not a fully comprehensive overview of every possible craniotomy variation. As such, the editors call for submissions for additional chapters that could be added to future editions (contact Editorial Office Craniotomy Book: craniotomyatlas@insel.ch). As an example, a section on positioning when using intra-operative MRI would be useful. The clear table of contents and index allows the book to be used as a quick reference guide, and I would recommend having a copy of this excellent book available in every neurosurgery department.