and vertebral artery transpositions. Each section begins with a brief overview of the surgical anatomy with the use of pictures and illustrations of anatomic specimens. Each case is then presented as a brief vignette, along with relevant preoperative imaging. The approach in regard to surgical positioning, and incision/craniotomy, is provided in the form of a line drawing within the header for each case, along with a simple schematic illustration of the particular operation that provides a user-friendly visual summary of the underlying case. The number of cases in each section appropriately reflects the relative occurrence of such procedures with, for example, 10 cases of superficial temporal artery-to-MCA bypass vs 1 case for sections such as middle meningeal artery-to-MCA bypass and facial artery-to-vertebral artery bypass.

In considering such a book, it is as important to recognize what it does not provide to appreciate the wealth of surgical technique that it does impart. As an atlas, the focus of the book is technical, and thus considerations of indications, decision-making, and alternate strategies are not addressed. Neither are other details of perioperative management, or intraoperative maneuvers such as neuroprotection, antithrombotic therapy, and flow measurement that may impact the success of surgery overall. Furthermore, trainees new to bypass should not expect this atlas to provide a detailed “how-to” manual for learning bypass surgery. Rather, it demonstrates the feasibility of a wide array of approaches to complex cerebrovascular entities, and it provides a thorough overview of multiple advanced techniques. As such, it is valuable to those entering the field; even for experienced surgeons, the surgical approaches and videos provide a useful compendium, particularly for the more rarely encountered revascularization procedures.

It might be argued that the relevance of complex revascularization procedures, and thus by association, such a specialized surgical atlas, is diminished in the era of advancing endovascular techniques. However, even as new technologies emerge, experience has shown us that the occasional failure of these technologies themselves can generate yet more difficult challenges, requiring yet more advanced surgical approaches. This well-prepared atlas provides us with a valuable resource regarding the range of surgical revascularization procedures that can be offered. As a cerebrovascular specialist, I am certainly happy to have a copy on my bookshelf!

**Disclosure**

The author has no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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**Book Review: Microsurgery of Skull Base Paragangliomas**

By: Mario Sanna, Paolo Piazza, Seung-Ho Shin, Sean Flanagan, Fernando Mancini,

Published by: Thieme Publishers, New York, NY, 2013,

Hardcover: 716 pp.,

Price: $249.99,

ISBN: 978-3-13-148611-0

*Microsurgery of Skull Base Paragangliomas* by Dr Sanna and colleagues is the first in its kind, gathering pertinent data on epidemiology, surgical anatomy, diagnostics, classification, and treatment paradigm in 1 book.

Excellent attention has been given to describing surgical techniques, along with invaluable illustrations taking the surgeon step-by-step through surgery. Every important aspect of management has been given its own chapter.

Surgical considerations specific to this tumor group have resulted in separate chapters, giving special attention to facial nerve, internal carotid artery, and vertebral artery involvement, lower cranial nerve involvement, and intradural extension, and their management.

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**Microsurgery of Skull Base Paragangliomas**

*With the collaboration of*

- Abdelkader Taleb
- Alessandra Russo
- Himati Surmise
- Maurizio Falcioni
- Giuseppe De Donato
- Yoko Takata
- Giuseppe Di Trapani
- Shailender Stoolingam
- Roberto Rizzoli
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**Mario Sanna**

Paolo Piazza

Seung-Ho Shin

Sean Flanagan

Fernando Mancini

Thieme
Adequate exposure has been given to the utility of endovascular techniques as well.

This book is intended mostly for skull base surgeons from both neurosurgical and otolaryngological backgrounds and meets this audience’s needs and can be used as reference. The chapters are supported with pertinent literature evidence, and the latest evidence has been incorporated, including the latest in genetics.

Although much of the content is not new, its uniqueness lies in the fact that almost all the pertinent data with respect to paragangliomas are collected in 1 book. The organization is well planned, and the fact that a high number of illustrations and imagings are used adds to its utility.

The book, however, has 2 shortcomings. Slightly more attention should have been given to type D tumors beyond what chapter 17 has described. Furthermore, radiation therapy has emerged in the latest decade as an alternative or adjuvant therapy to surgical resection and/or embolization. No attention has been given to it in the book, which has a strong bias in favor of surgery.

Disclosure

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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Board review style answer #1. D. Paraganglioma is determined to be malignant only when metastases are present. Comment Here.

Board review style question #2. The genetic mutation most commonly associated with benign paragangliomas of the head and neck is: NF1. RET oncogene. Succinate dehydrogenase (SDH) mitochondrial complex. THEM127 and VHL. Board review style answer #2. C. Succinate dehydrogenase (SDH) mitochondrial complex. Comment Here.

The authors have labored not to popularize skull base surgery, but to provide the details of each operation, giving surgeons the valuable information they need. Each chapter of the text discusses a specific procedure and is divided into two sections, covering both the general surgical steps of the procedure and also its application. Within each chapter you'll find: general considerations; surgical techniques; applications; tips and pratfalls; imaging scans of illustrative cases; and color plates of pre- and post-operative preparation and instrumentation.

Drawing on decades of experience and wisdom, Dr. Ugo Fisch created this classic text/atlas on microsurgical procedures for the skull base. Microsurgery of Skull Base Paragangioma 700 pages, hardback £181.99 9783131486110 PUBLISHER Thieme  St January 2014 · Annals of The Royal College of Surgeons of England. Mario Sanna. Representing the pinnacle of skull base surgery, paraganglioma management requires the advanced surgical skills and expertise that are presented by Dr. Mario Sanna and his team in this comprehensive reference. It incorporates extensive surgical and radiological data compiled over 20 years at the preeminent Gruppo Otologica Clinic in Piacenza, Italy, and features the exquisite intraoperative [Show full abstract] photographs and schematic diagrams that are a hallmark of the highly regarded Sanna texts.