

B. George, M Bruneau and R. F. Spetzler: Pathology and surgery around the vertebral artery

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Philippe Bijlenga

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The initiative to write a book on surgery around the vertebral artery was brilliant. This book targets a wide audience of surgeons, including ENTs, vascular surgeons, orthopedic neurosurgeons and endovascular interventionists.

Initially, the book looks nice, and I found the choice of colors and front cover illustration in tune with contemporary design. When opened, the text is richly illustrated by schema, tables, photography of cadaver dissections and surgical exposures, as well as extremely well-selected imaging. I found the drawings to be a remarkable backbone to the text, enhancing all important landmarks and illustrating the surgical technique step by step in a very didactic way.

The editorial team authored 16 chapters out of 45 and succeeded in collecting contributions from surgeons respected for their work, if not considered as world leading experts in the field.

After a review of the history of vertebral artery surgery, the first six chapters are devoted to the embryology and anatomy of the vertebral artery and its relationships with the surrounding structures. The embryology chapter was rewritten from the previous work of Pierre Lasjaunias, who sadly could not contribute himself. The chapter series ends with a review of anatomical variations that are important for all surgeons operating close to the vertebral artery to know. As illustrated in the last chapter, discussing complications of surgery around the vertebral artery and their management, most complications arise from unrecognized anatomical variations.

Three chapters then cover the topic of imaging the anatomy and flow of the vertebral artery.

After discussing vertebral artery dissections and their management, five chapters present the surgical approaches to the V1 and V2 segments, and techniques for the resections of tumors in both regions as well as the indications and technique for proximal vertebral artery revascularization.

The next three chapters describe the selective microforaminotomy, oblique corpectomy and resulting biomechanical modifications. I can only advise all surgeons performing cervical disc hernia and degenerative spine surgeries to study, train, master and use the approach and technique described here.

Four chapters then cover the topic of compression of or by the vertebral artery, and vertebral artery trauma and its management.

Moving upward along the artery, the next eight chapters focus on all aspects of the anatomy and surgical approaches to tumors and other lesions of the craniocervical junction. Here, a panel of masters gives their different points of view to comprehensively cover the topic.

Seven chapters then report true vascular issues of the distal vertebral artery, discussing bow hunter's stroke, vascular malformations, fistulae, aneurysms and vasculonervous conflicts, as well as treatment options using proximal artery occlusion, clipping, revascularization as well as more recent endovascular treatments such as stenting.

Two chapters review surgical cures for craniocervical junction instability in a synthetic and pedagogic way. Here again the drawings are extremely helpful, illustrating key items for understanding or remembering.

Finally, four chapters concentrate on jugular foramen tumors and different approaches, illustrated by rich material

P. Bijlenga (✉)
University of Geneva Medical Center, Faculty of Medicine,
University of Geneva,
Rue Gabrielle-Perret-Gentil 4,
1211 Geneva 14, Switzerland
e-mail: philippe.bijlenga@hcuge.ch

of high-quality operative pictures and drawings, as well as numerous illustrative case descriptions.

The aim of this book is to make vertebral artery surgery accessible to most surgeons. It is definitely a legacy from a great team of surgeons who pioneered the field and succeeded in developing techniques so that no area is out of reach anymore. As stated by Gazi Yasargil and Jacques Brotchi in their foreword, it is an “immense collective and

creative endeavor” that “will become the classic on this topic and the reference for contemporary neurosurgeons.”

The book is very nice, but nowadays we are used to searching documents quickly by keywords, and I would strongly suggest a digital format to be made available soon.

A must have.

Conflicts of interest None.