Pathology and Surgery around the Vertebral Artery

B. George, M. Bruneau, R.F. Spetzler (Eds) By Pierre Kehr

This dense book is meant to be an encyclopaedia of this very specific vessel. It is the result of an international high-level collaboration mostly between neurosurgeons, neuroradiologists and vascular surgeons.

All the different aspects of pathology, diagnosis and treatment of the vertebral artery are covered and chapters are consistently organised.

The book begins by tracing the history of the surgery of the vertebral artery and from the start, we can only deplore the neuro-surgical bias with which this first chapter is written; in fact, the important works of A. Jung and colleagues, the orthopaedic surgeons who described already in 1962 the pathology and its surgical treatment of the V2 segment of the vertebral artery [1-4] are completely overlooked.

Indeed, the works of A. Jung et al. had paved the way for the surgical approach to the foraminal (V2) segment of the vertebral artery, as well as for the approach to the foramen; H. Verbiest [5] had also given a description of a variation of the approach to the cervical canal. We regret that the authors ignore these previous publications; it can probably be explained by current conventions regarding bibliography, which conventions hardly take into account the works that are not recent.

Embryology is very thoroughly addressed, which is very useful in gaining a good grasp of the anastomosing networks of the vertebral artery. The subsequent chapters

provide a comprehensive coverage of the anatomy, including the artery itself, its relation with the nerve roots, the origin of the anterior spinal artery, and anatomical variations; it is essential to identify them before performing surgery of this artery, especially in case of abnormal entrance into the transverse canal.

Then, a description of the diagnostic tools is presented, with non-invasive imaging as well as ultrasonography. Once again, it is to be regretted that no mention is made of the works of A. Wackenheim [6].

The different approaches to the artery and its pathology form the subject of the ensuing chapters. All the segments of the artery are studied, from V1 to V3 segment. The chapter analysing the effect of cervical spine surgery on the vertebral artery is indeed very interesting.

The illustrations are excellent, including anatomical diagrams, along with pictures, photographs of anatomical dissections and surgical procedures.

A great book that should be on the shelves of every surgeon concerned with the approach to the artery and to the cervical spine, neurosurgeons, orthopaedic surgeons or even vascular surgeons. It is a 21st century book, which is the explanation for its bibliographical shortcomings. However, the author of this book review cannot omit to mention them, because his own publications are not cited but also precisely because it is an otherwise outstanding book.

This book review was previously published in Eur J Orthop Surg Traumatol (2012) online (Springerlink) on 16 October 2012.

DOI 10.1007/s00590-012-1096-7

/+/ Pathology and Surgery around the Vertebral Artery

2012, Hardcover, 690 pp, nbr. ill. Springer Verlag, Paris ISBN-10: 2287897860 ISBN-13: 978-2287897863

/+/ References.

- ① Jung A (1963) Résection de l'articulation unco-vertébrale et ouverture du trou de conjugaison par voie antérieure dans le traitement de la névralgie cervico-brachiale. Technique opératoire. Mem Acad Chir 89, 11-12-13, 361-367.
- ② Jung A, Kehr P (1972) Pathologie de l'artère vertébrale et des racines nerveuses dans les arthroses et les traumatismes du rachis cervical. Volume 1, Masson et Cie, Paris
- ③ Kehr P, Weidner A (1987) Cervical Spine I – Strasbourg 1985, volume 1, Springer Verlag Wien, New York.
- Wehr P, Jung A (1985) Chirurgie der Arteria vertebralis an den Bewegunssegmenten der Halswirbelsäule. 1 volume Gustav Fischer Verlag Stuttgart, New York.
- ⑤ Verbiest H (1970) La chirurgie antérieure et latérale du rachis cervical. Neuro-Chirurgie, 16, suppl. 2, 20e Congrès de la Soc. de Neuro-Chirurgie de langue française. Masson, Paris.
- (6) Wackenheim A, Babin E (1970) Les variations du trajet du segment cervical de l'artère vertébrale. A propos de deux cas de trajet extra-transversaire du segment V2. J Med Strasbourg, 1, 3 mars, 197-201.