

CEREBRAL VASOSPASM.

By *R. Loch Macdonald and Bryce Weir.*

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This book, which is the work of only two authors, is the *magnum opus* on cerebral vasospasm secondary to subarachnoid haemorrhage. In a way, the title 'Cerebral vasospasm' is a little misleading, since the aspects of vasospasm not related to subarachnoid haemorrhage are not dealt with or even mentioned. For instance, the controversial issues of vasospasm in migraine and other non-haemorrhagic diseases are not discussed, and the concept of vasospasm as a recently revived phenomenon contributing to several conditions leading to brain ischaemia is not addressed. For these reasons, 'Vasospasm after subarachnoid haemorrhage' might have been a better title, especially for those interested readers who order books from title lists provided by publishers.

The book is very well organized into 12 chapters encompassing all possible aspects of vasospasm due to ruptured sacciform aneurysm, and to a lesser extent to non-aneurysmal subarachnoid haemorrhage. Both authors are surgeons, and it is striking how complete their review work has been even in domains somewhat remote from their initial field of expertise, e.g. haematology.

The first chapter nicely overviews in 15 pages the historical background of subarachnoid haemorrhage vasospasm, including pathology, radiology and therapy, summarizing the diverse aetiological theories, which have been put forward in the twentieth century, and concluding that there is presently still 'no grand, unifying hypothesis' available.

Epidemiology is well covered, with extensive emphasis on incidence and prognostic factors, as well as surgical issues. However, despite the initial statement that 'vasospasm is the most common cause of focal ischemia after subarachnoid haemorrhage', I was unable to find any suitable description of the clinical pictures associated with vasospasm. Indeed, despite a few mentions of the clinical features of this condition which I found hidden in sections such as 'clinical grade' in this chapter, or in a few lines of Chapters 4 and 8, I could not track down an appropriate overview of the neurological manifestations of cerebral vasospasm from subarachnoid haemorrhage. Perhaps it is just a minor surgeons' sin being picked up by an obsessive-compulsive

neurologist's mind, but this disappointment ended up in leaving me with the unpleasant impression of an indelible, although small, stain on an otherwise excellent book, close to being the 'definitive work' claimed by a fellow surgeon preface.

The next chapters are devoted to blood and coagulation, and to pathology and pathogenesis. The clear classifications and the thorough discussion of existing controversies are particularly impressive, the abundance of detail is never detrimental to understanding. The section on arterial changes in vasospasm was particularly enlightening. Chapter 7 on 'structure, physiology, and biochemistry of vascular smooth muscle' is a nice complement, with extensive comments on relevant ultrastructural aspects of arterial wall changes associated with vasospasm.

Chapters 5, 6, 8 and 10 review the imaging, pharmacological and medical and surgical management issues of vasospasm from subarachnoid haemorrhage. The problems are well analysed, but perhaps the reader would have been happy to get a concluding subchapter, in which an actual state-of-the-art of treatment would have been synthesized.

The last two chapters deal with experimental aspects (animal models) and future developments in molecular biology and genetics, the book finishing with the subsection on gene therapy.

Each chapter is extensively referenced, including papers published as recently as 2000, and the index is reader-friendly.

The 'weak' point of the book is its production on a rather unpleasant paper, which seems too thin for the size of the book (despite its 518 pages, it is itself too thin for its width), which makes it a very inconvenient object to keep in the hands when one tries to open it. The authors and their *magnum opus* would have deserved better care.

Despite these slightly annoying flaws, this book is highly recommended to all physicians and researchers involved in subarachnoid haemorrhage. As a reference book, every clinical neuroscience library is bound to acquire a copy.

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