Integrated Management of Complex Intracranial Lesions

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Open, Endoscopic, and Keyhole Techniques

Edited by
Vijay Agarwal

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To Dr. Raghu and Manju Agarwal, my first and greatest educators.

Contents

Contents

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Foreword

"If you change the way you look at things, the things you look at change."
Wayne Walter Dyer, American philosopher

Stone tools were used by early hominids to perform one of the earliest surgical procedures of which we have evidence: perforating the skull to let out demons or to release insanities resulting from head injuries. The oldest trephinations, from 10,000 BCE, have been found in Northern Africa. There is no evidence these ancient humans performed surgery on the brain, and thus these instances cannot be regarded as the true beginning of the field of neurosurgery. Yet it took Homo sapiens 290,000 years of natural selection to be able to trephine the skulls of other Homo sapiens and only 11,000 to develop modern neurosurgery, replete with all the tools and knowledge we now have at our disposal.

American medicine has done a remarkable job of increasing the quantity of life. Now we are faced with the challenge of improving the quality of that prolonged life. We all hope to live long lives, but none of us want to live to be 100 years old if it means we cannot move, suffer from pain, are severely disabled, or have lost the memories we spent a lifetime creating. Indeed, we face many ongoing challenges in the neurosciences, and those challenges must be addressed by scientists and physician-scientists in all departments and centers. Among the many successes of modern neurosurgery is the development of surgical exposures of intracranial pathology that have reduced the need to manipulate and retract neural tissue.

All neurosurgical trainees benefit from microsurgical and skull base surgical training. The skills of spine, pediatric, tumor, peripheral nerve, functional, and trauma neurosurgeons are enhanced by exposure to microsurgical training and the anatomical basis of skull base exposures. The benefit of illumination and magnification provided by the operative microscope and the principle of removing extraneous, disposable tissue, such as bone from the base of the skull, to minimize or eliminate retraction and manipulation or the brain can be applied to all subspecialties of neurosurgery and is one of the many principles that separate neurosurgery from other surgical disciplines.

In this volume, Dr. Agarwal has assembled world experts from the disciplines of otolaryngology and neurosurgery to provide a comprehensive treatise on the current state of the art in the surgical exposure of pathology of the base of the human skull.

We must thank, most of all, our patients, who have put their faith and trust in not only our surgical but our decision-making skills.

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