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BOOK REVIEW

Ken Herrmann, Omgo E. Neiweg and Stephen P. Povoski (eds): Radioguided Surgery. Current Applications and Innovative Directions in Clinical Practice

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This book is edited by Ken Herrmann, Vice Chair of Nuclear Medicine at Universitäts klinikum Würzburg, Omgo E. Nieweg, Clinical Professor of Melanoma and Surgical Oncology at the University of Sydney, and Stephen P. Povoski, surgical oncologist at the Ohio State University. The authors cover every aspect of radioguided surgery, starting with a discussion of the history of the subject back to the late 1940s, followed by a section that details methodology including basic physics principles and methods of radiation detection. However, the core of the book analyses all principal clinical fields of application, with a chapter devoted to each. The book ends with a chapter dedicated to future perspectives that gives an outlook on new techniques, image fusion and optical imaging, and includes a collection of the most interesting case reports on the subject. Although this book published by Springer in 2016 is at its first edition, it is very well structured into 12 parts and 29 chapters, for a total of 503 pages, with 142 illustrations, 17 black and white and 125 in colour.

Each chapter is introduced by an abstract, which gives an overview of the main topics discussed in the chapter. Concluding remarks at the end of each chapter provide a brief discussion of the important indications together with the pros and cons of radioguided surgery and possible future evolution of treated patients. The book provides comprehensive coverage of each aspect, including an elucidation of physics principles and methods of radiation detection (covering device technology, principles of surgical navigation, the most common tracers used in radioguided surgery, and radiation safety and dosimetry) and clinical applications.

After the section providing details of methodology there is a series of chapters that analyse the most important malignancies for which the decisional algorithm may include radioguided surgery. The discussion covers breast cancer, melanoma and other cutaneous malignancies, gynaecological malignancies, head and neck malignancies, thyroid and parathyroid cancer, urogenital tract malignancies, gastrointestinal tract malignancies with a focus on gastroesophageal cancer, colorectal cancer and gastroenteropancreatic neuroendocrine tumours, lung cancer and bone tumours. For each field of application outlined the recommended methodological approach and the main concepts are often reinforced by colour illustrations which are an invaluable "plus" of the book. The chapters also always provide valuable information on recent developments and new technical possibilities for clinical translation.

Because of the positive aspects discussed above and the fact that the routine clinical use of radioguided surgery is still limited, this book is a milestone in this field as it was written by world-leading nuclear medicine imaging specialists and surgeons and thus benefits from the multidisciplinary contributions of experts sharing their personal experience to enhance the quality of the work. Therefore, the book is of the utmost interest to a wide audience, including all physicians involved in the diagnosis and treatment of cancer patients, as well as general surgeons, nuclear medicine physicians, oncologists and pathologists.

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