Ayfer Haydaroglu, Gokhan Ozygit (eds): Principles and Practice of Modern Radiotherapy Techniques in Breast Cancer

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Breast cancer is the most common cause of cancer death among women, and it is by far the most common malignancy in women, with 1.38 million new cases diagnosed in 2008 (23 % of all tumours). Although we still await worldwide implementation of an effective primary prevention strategy, the life expectancy of women with breast cancer has greatly improved mainly because of the progress in therapy and, above all, thanks to modern radiotherapy techniques. The goal of this text is to provide a valuable manual that contributes to the planning and performance of modern radiotherapy techniques used in the treatment of breast cancer, all supported by the most recent theoretical as well as practical information.

The editors of the book are Ayfer Haydaroglu, Professor of Radiation Oncology at Ege University in Izmir, and Gokhan Ozygit, Professor of Radiation Oncology at Hacettepe University in Ankara, both in Turkey.

The text consists of 358 pages divided into five parts each comprising several chapters. The first part provides general information and comprises seven chapters: 1. Epidemiology and Etiology of Breast Cancer; 2. Staging of Breast Cancer; 3. Molecular Classification; 4. Prognostic and Predictive Factors; 5. Mechanism of Resistance to Radiation; 6. Interaction of Chemotherapy, Radiotherapy and Timing; and 7. Interactions of Radiotherapy with Hormone therapy. The second part describes the therapeutic results of radiotherapy in breast cancer and comprises four chapters: 8. Ductal Carcinoma in Situ; 9. Early Stage Breast Cancer; 10. Locally Advanced Breast Cancer; and 11. Metastatic Breast Cancer. The third part is a radiotherapy atlas in breast cancer and provides extremely useful data and information on the

determination of the target volume of the lesion, the “contouring” of the various organs, the risks involved in the radiotherapy procedure, the tolerated doses and toxicity. All this part is based only on CT, since the possible contribution of FDG PET is not considered, even critically. This part comprises three chapters: 12. The Organs at Risk and Radiation Tolerance Doses; 13. Chest Wall and Regional Lymphatics; and 14. Breast and Tumor Bed.

The fourth part is an overview of the most modern radiotherapy techniques in breast cancer. This part comprises the following nine chapters: 15. Simulation and Patient Fixation Methods; 16. Three-Dimensional Planning Techniques; 17. Inverse Planning, Intensity Modulated Radiation Therapy and Image-Guided Radiation Therapy; 18. Forward Planning Intensity Modulated Radiation Therapy Techniques; 19. Boost Techniques; 20. Quality Assurance; 21. Partial Breast Irradiation; 22. Hypo-fractionation; and 23. Application of Tomotherapy in Breast Cancer Patients. As mentioned above, there is no discussion on the possible role of FDG PET in defining the target for the radiotherapy of breast cancer. The fifth part focuses on complications of radiotherapy in patients with breast cancer and consists of a single chapter (chapter 24).

The book is a very useful text for radiotherapists and radiologists, residents, physicists and technicians working in radiotherapy. Furthermore, we believe that this book could be a useful support for all clinicians and surgeons involved in the treatment of breast cancer. With the definition of the tumour target being a growing and increasingly important field for FDG PET/CT, we think that this publication could also be useful for nuclear physicians who want to learn the background, technical and clinical issues concerning the therapy of breast cancer as a basis for their involvement in the best definition of the target in radiotherapy.

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