

Breast cancer is the most common malignancy in women. According to the American Cancer Society, breast cancer accounts for 30% of all female malignancies and 14% of female cancer deaths in the United States in 2017. While the prevalence of breast cancer is relatively low in China, it has kept rising in the past two decades. For many years breast cancer has ranked first among cancers diagnosed in women in large and medium cities in China. The number of Chinese women with this life-threatening condition is expected to rise from 1.6 million in 2015 to 2.5 million in 2021.

For nearly half a century, it has been gradually recognized that breast cancer is a systemic disease; as a result, clinical treatment of breast cancer has evolved from surgery alone to multidisciplinary management including surgery, chemotherapy, endocrine therapy, radiotherapy and targeted therapy; in particular, the surgical treatment has also transformed from complete radical resection of local malignancy to breast-conserving surgeries focusing on both treatment effectiveness and surgical trauma as well as other procedures (e.g. sentinel lymph node biopsy). During the same period, new developments in medical imaging, pathology, and molecular pathology also contribute to the earlier and more accurate diagnosis of breast cancer. Advances in diagnosis and treatment of breast cancer have dramatically improved the prognosis and quality of life of patients with this malignancy. New insights on the biological features of breast cancer in the 21st century, thanks to the development of molecular typing and other novel techniques, have brought the management of breast cancer from the era of evidence-based medicine to a more individualized and targeted practice - precision medicine.

Better management of breast cancer is based on the continuous improvements in clinical practices and translational research. Every year nearly 20,000 scientific articles on breast cancer are included in the PubMed database, constantly refreshing our understanding of this disease. In an era of Big Data, however, it is challenging for most clinicians to comprehensively and quickly grasp the forefront knowledge of breast cancer. In this book, therefore, we carefully collected a series of excellent review articles on breast cancer that cover the epidemiology, basic research, and clinical diagnosis and treatment of this malignancy by focusing on the hottest real-world clinical issues and the most promising concepts and theories that may substantially change the clinical practices in the coming decades.

Hopefully this book will provide the oncologists, researchers, and other interested readers a quick and reliable way to learn the cutting-edge information on the clinical practice and translational research of breast cancer. Also, we hope more similar works will be available to benefit the clinicians, researchers, and patients.

**Keda Yu, Zhimin Shao**

Department of Breast Surgery, Shanghai Cancer Center, Fudan University, China