

Preface

Cancer is a devastating disease with a severe impact on the physical and psychological well being of patients. The diagnosis of cancer brings many questions starting with diagnosis, decision on treatment, and the prospect of living with the constant possibility of recurrence. To date, only limited therapeutic options are available for most advanced cancers, and in many cases, the five-year survival rate remains difficult to achieve even with the best therapies available in the practice. Patients often seek clear and simple answers, which are not always provided by modern medicine. This often leads patients to shift attention to alternative therapies, including the holistic approach of alternative medicine, particularly preparations from herbal products, which have formed the basis for traditional medicine for thousands of years. Indeed, most ancient civilizations document the use of traditional medicine to treat a variety of illnesses and infections and have contributed to the assimilation, codification, and development of plant-based formulations. Not surprising, a significant number of naturally derived drugs are already in use in oncology practice, and herbal products continue to offer opportunities for creative discovery of novel bioactive molecules and drugs, an area that is becoming a mainstream research approach both in academic research laboratories and large pharmaceutical firms.

Today, the use of herbal and nonherbal products for medical purpose is widespread worldwide, and continues as a distinct branch of medical practice in many parts of the world, and particularly in China where it is integrated into the public health care system. In the

Western world, the use of alternative therapies is gaining ground, especially traditional Chinese and Indian medicine, which represent some of the favored adjunctive therapies and are most compatible with conventional therapies although having distinct concepts. Typically, herbal formulations contain single or multiple active pharmacological components, as well as non-herbal ingredients. Yet most remain classified as food supplements and thus are exempt from regulations on quality control and proof of efficacy that govern standard pharmaceuticals. Although their potential benefit cannot be denied, current scientific and clinical studies using alternative therapies are inconsistent and with conflicting clinical results. Herbal preparations and formulations are available in the market, easily accessible, and widely used by cancer patients before, during, or after treatment. Even when patients inform their mainstream doctors of such use, the significance is not always obvious as the field remains a new territory for conventional medical curricula in Western medicine. In the absence of rigorous clinical studies and regulatory guidelines, the dilemma in clinical practice remains how to evaluate the efficacy of mixed formulations by determining the surrounding safety concerns, the possibility of an unjustifiable economic burden to patients, and the general risks of their interfering with or exacerbating the toxicity of standard therapies.

From a scientific perspective, the central obvious boundaries of the coexistence of nonconventional therapies with conventional practice are methodological issues relevant to the complex nature of complementary medicine, lack of rigorous and fragmented clinical trials, proof of efficacy, and legal standards that govern standard pharmaceuticals in modern oncology. These can represent the dark corners for cynical, misguided, and hegemonious use, or even harmful exploitative use of alternative therapies. With the emergence of several government-supported agencies to launch initiatives to find and support both basic and applied research on alternative therapies, and to increase regulatory guidelines and policies, such boundaries will likely evolve into beneficial integrative practice.

This book was put together by eminent and recognized experts in alternative medicine, medical oncology, cancer pharmacology, safety and regulatory issues, and modern cancer research. It is dedicated primarily to the medical community, health care

providers, and to medical students. It brings a set of timely, in-depth, and up-to-date reviews covering the progress and limitations of conventional cancer therapies, the latest developments in alternative cancer management from clinical and regulatory perspectives, and practical recommendations for health care providers. Eminent traditional oncology experts from China and India outline the theory of traditional medicine, pattern identification, and treatment principles of various cancer types, and common formulations used in large oncology centers in China and India. Areas of controversy and potential integration into conventional oncology practice are highlighted and updated. In this respect, the benefit of alternative medicine to alleviate side effects of some chemotherapy drugs or related pain is addressed in separate chapters. In addition to the clinical aspect, the book acknowledges the importance of chemical diversity of herbal products for drug discovery in the new era of targeted therapy. Natural products will continue to be a precious source of drug development well into the future, now that great progress in genomics and proteomics open up new territory in terms of novel targets associated with the onset of the disease. In this regard, the book highlights progress in the chemistry and biology of high-throughput chemical libraries from natural products.

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