
Recent Results
in Cancer Research 53

Fortschritte der Krebsforschung
Progrès dans les recherches sur le cancer

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Introduction

This book is addressed primarily to the practicing oncologist and hematologist and to others who may not be able personally to scan the plethora of papers discussing the use of cytotoxic agents in the treatment of cancer. In addition, anyone in any way concerned with the problem of cancer or its treatment — be he internist, surgeon, radiotherapist, family physician, basic researcher, or pharmacologist — will find some useful information here. We especially wish physicians who may see cancer patients in their practice to be informed about the progress being made in the management of advanced cancer, particularly the indications for therapy and the results. Our greatest concern is that every patient should receive the best therapy currently available.

This text is the first English edition of *La chimiothérapie des cancers* by G. Mathé. The two earlier editions have been completely revised, enlarged, and updated. Some of the authors have worked on both sides of the Atlantic, so that European and American points of view have been integrated, hopefully to advantage.

The first part outlines the basic principles of cancer chemotherapy. Certain aspects of cellular and molecular biology, and of tumor cell characteristics and kinetics are reviewed because they are necessary to an understanding of the mechanisms of action of cytotoxic drugs. The reader is given the experimental data on which current chemotherapy protocols are based and shown how they are applied to the clinical situation. In view of the importance of organized cooperative trials, several chapters describe the different phases of preclinical and clinical trials and the practical aspects of treatment with cytotoxic agents.

A considerable portion of this review has been devoted to a discussion of general principles because they constitute the rationale upon which current and future chemotherapeutic protocols are based. As our understanding of these principles increases, it is no longer enough to hand out cookbook-type recipes for cancer chemotherapy.

On several occasions we have, for sake of clarity, made statements on issues that are still under debate; for example, the classification of cytotoxic agents according to their effect on the cell cycle.

The second part of the book deals with the treatment of various hematologic malignancies and solid tumors. All through this textbook, we discuss chemotherapy in the context of the overall treatment strategy, the aim of which is to cure the patient. A cure requires that all cancer cells be killed. The strategy includes four treatment modalities, each of which may play a specific role in the achievement of a cure, according to the stage of the disease at which the patient presents for treatment.

For each disease entity we have reviewed the effectiveness of the various conventional and experimental cytotoxic agents, used singly and in various combinations. The reader will appreciate that such information can only be relative. Most of it is based on data obtained by a number of authors, using different schedules and different criteria to evaluate response, and treating different patient populations, often in trials that are not comparable. When a particular regimen is clearly superior, we have indicated this. The authors do not claim to be without some personal bias, but every effort has been made to consider different opinions. Special recommendations are based on treatment schedules for which adequate data have been published.

At the Institut de Cancérologie et d'Immunogénétique and at the Institut Gustave Roussy we are investigating protocols that exploit the phenomena of cell synchronization, recruitment, and potentiation. We hope by these means to improve existing regimens, but we must wait until we have sufficient data to justify their use.

The reader may sometimes have the impression that not much in the way of conclusions can be drawn from the results listed in various tables. Unfortunately, this is all too true. This vagueness serves to stress the necessity for controlled trials and organized studies to obtain answers to specific questions.

The need for more uniformity in terminology, staging classifications and procedures, criteria for evaluating responses, and methods for reporting results is also repeatedly emphasized.

Without uniformity in such matters, the institutions and treatment groups cannot be compared.

We constantly stress the need for a concerted effort in the management of cancer patients: at the time of diagnosis and at various stages in the course of the illness, a case should be discussed by a surgeon, a radiotherapist, a chemotherapist and nowadays an immunotherapist. We anticipate that in the years to come a significant effort will be made to employ systematic chemotherapy and immunotherapy to supplement surgery or radiotherapy in apparently localized disease. If the results of treating residual disease by systematic chemotherapy have so far been of questionable value, this may be because it was carried out under suboptimal conditions. The next decade should confirm whether adjuvant therapy of good quality is capable of improving the overall cure rate of one in three cancer patients. The cooperative approach is usually practicable only in centers or clinics that specialize in the treatment of cancer, but it in no way excludes the participation of the

family doctor. On the contrary, he becomes an integral part of a team that takes care of his patient from diagnosis until death, if not cure.

This work is based on the observations of many dedicated and competent researchers and clinicians. Some important contributions may well have escaped our attention and hence fail to appear in this text. We also realize the temporary value of a work of this nature. Chemotherapy is a rapidly changing discipline and many recommendations made today may no longer be valid a couple of years from now.

We have tried to keep the contents updated as much as possible during the time-consuming process of publication.

Complementary data can be found in G. Mathé:

Cancer Active Immunotherapy, Immunoprophylaxis and Immunorestitution. Springer-Verlag, 1976. Readers are urged to check the original articles for the correctness of dosage schedules, modes of administration, toxicity and special precautions.

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A. Clarysse Y. Kenis G. Mathé

Cancer Chemotherapy

Its Role in the Treatment Strategy of
Hematologic Malignancies and Solid Tumors

With 154 Figures



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