Further Section

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Book Reviews

P.H. Smith, M. Pavone-Macaluso (eds)
Management of Advanced Cancer of Prostate and Bladder

Cancer of the prostate and of the urinary bladder are frequent causes of death and their incidence is increasing worldwide. On the other hand, recent progress in the clinical management of patients suffering from these malignancies raises hope for their successful treatment. These are the reasons why the EORTC Genitourinary Group devoted its attention to both neoplastic diseases. In the series entitled: Progress in Clinical and Biological Research this is volume 260 and it represents the fourth monograph of the Group. In section A androgens and antiandrogens, LHRH analogues are thoroughly discussed and data of phase III trials on hormonal treatment of prostatic cancer clarify the role of standard classical therapies such as orchidectomy or the use of stilboestrol. Life assessment, chemotherapy and terminal care of patients with prostatic cancer are topics of further chapters. Section B lists a vast amount of new information on bladder cancer. The size of this part of the book is more than quadruple of that on prostatic cancer. Biology and research, diagnosis and staging are the first aspects to be analyzed. The majority of contributions, however, deal with the new surgical approaches such as radical cystectomy and various plastic operations with subsequent radio- and chemotherapy. More than thirty various multimodality treatment methods are enlisted. Adjuvant and neoadjuvant chemotherapy as methods of a promising future strategy are discussed at the end of the volume. The reader really gets the impression that this book is an absolutely essential aid for those treating patients with genitourinary cancer, in particular urinary bladder carcinoma. This is not so much the case with the section on prostatic carcinoma the chapters of which also comprises useful informations without being complete in the sense of a multimodality treatment.

S. Eckhardt, Budapest

Cary L. Cooper
Stress and Breast Cancer
appears to be a solid review of the modern literature (mainly from English-speaking countries) giving an objective estimation of the problem state of the art. Going back to history the authors remind us that already Galen related cancer development to nervous stresses, and the British scientist H. Snow emphasized the influence of stress on mastopathy and breast cancer development in his manuscript published in 1893 (this immediately calls to mind that already in the middle of the last century Russian physicians called mastopathy “breast of a hysterical woman”.

Although the book consists of 6 chapters, it is really divided into three major sections. One of them discusses psychological and social factors as precursors and initiators of tumor
development and their role in the pathogenesis of the disease. The effect of stresses on the status of the endocrine system and the level of a host immunocompetence which play a role in oncopathology of mammary glands are considered in detail.

The second section describes the peculiarities of the psychoemotional sphere and its effect on the course and prognosis of breast cancer.

It should be noted, however, that despite a profound critical analysis conducted by the authors, some statements are still hypothetic and even controversial and could hardly be employed in everyday clinical practice. They should rather be estimated as a foundation for further investigations and an approach to their methodology.

The third section of the book differs considerably from the rest of the material. The authors deal with the problem of ‘stress and breast cancer’ from another standpoint, i.e. the influence of the disease itself and therapeutic measures associated with the treatment on the patient’s psychoemotional status. The incidence and manifestation of different psychological disturbances in breast cancer patients have been carefully followed up in relation to premorbid peculiarities of a personality, age, extent of tumor spread, character of treatment (surgery, radio- or chemohormonotherapy).

The authors insist that every cancer patient needs a psychoneurological aid and this conclusion is far from unexpected. Unfortunately, still no accurate and grounded recommendations on the character, methods and terms of psychotherapy of breast cancer patients could be encountered in the literature.

Despite the complexity of the problem the book is written in a way which provides easy reading. Each chapter is completed by a brief summary and an outline of the prospects for the problem development in future.

N.P. Napalkov, Leningrad

The title of the book speaks for itself and emphasizes the value of the publication for clinical practice.

In fact, the role of psychological and social factors in cancer development can no longer be ignored. Alas, there are only few oncologists dealing with the problem and even less psychologists and psychoneurologists familiar with the problems of handling cancer patients. The authors’ objective in this work was an endeavor to compile the knowledge of leading experts in the field of psychology, sociology and clinical cancer research, to discuss the place of psychological and social studies in oncology, and to develop methodological principles of their performance. The above tasks have determined to a certain extent the format and style of the book. It

Gerhard Seifert (ed) Morphological Tumor Markers
Current Topics in Pathology
General Aspects and Diagnostic Relevance
Springer, Berlin 1987
XII + 398 pp.; DM 248.-
ISBN 3-540-16733-1

This excellent book is a result of a wide international collaboration of 26 outstanding authors who have undertaken the task of reviewing the spectrum of morphological tumor markers, methodi-
cal approaches in their demonstration and their relevance in diagnostic pathology. The morphological tumor markers are mostly cell or tissue markers which provide data related to the problems of the genesis and function of cells. In contrast with the biological markers the methods of immunocytochemistry and hybridization techniques permit the demonstration of these markers in situ on the cell membrane or within the cytoplasm. The first two chapters, as an introduction, deal with the application of monoclonal antibodies to human tumor antigens and the role of biochemical markers in human cancer. A special chapter refers to the different immunohistochemical methods for the demonstration of the tumor markers. The further chapters follow an order from a histogenetic point of view: epithelial tumor markers, mesenchymal markers and others, e.g. proteoglycans, basal membrane antigens, blood group substances, lectins, neuroendocrine products, viral tumor markers and organ-specific tumor markers, are widely discussed. The book gives new and thorough information to pathologists and oncology-oriented clinicians who are involved in the detection and diagnosis of cancer.

K. Lapis, Budapest

J.M. Cruse Immunomodulation of Neoplasia
Progress in Experimental Tumor Research, vol. 32
Karger, Basel 1988
VI+ 246 pp.; SFr. 238.-/DM 285.-/USS 158.75
ISBN 3-8055-595-9

Immunomodulation of neoplasia is the newest concept for treatment of malignant disease. Although the first attempts for this type of therapy were performed at the beginning of this century, recent knowledge on tumor host interactions, i.e. immunological mechanisms which are effective against tumor cells, has contributed considerably to the recent progress in the immunotherapy of cancer. This book offers, in ten chapters, most current knowledge on recent progress in tumor immunology and its application to immunomodulation in the animal system and in cancer patients. The first chapter is devoted to an overview of articles on the cellular and cytokine immunotherapy of cancer, as presented in the book, focusing on the specific aspects of each individual contribution. In the following chapter the role of different effector cells which are involved in the rejection of UV-induced mouse tumor is discussed; showing that tumor cell variants resulting from immune selection and genetic instability may escape immunosurveillance due to altered antigenicity. In the third chapter experiments which were aimed at enhancing host immune response versus tumors are presented. The types of immune reactivity induced by tumor-associated antigens and the effector mechanisms responsible for tumor cell injury and death, as investigated in a special murine tumor model, are detailed. Following this, tumor cell coupled with exogenous antigen and/or hapten were used alone or together with BCG to successfully inhibit tumor growth and metastatic spread. In the next chapter a novel approach for adoptive immunotherapy using transfer of specifically immune T lymphocytes
into mice with disseminated leukemia and lymphomas is presented. This work demonstrates that manipulation of autologous lymphocytes is required prior to adoptive imunotherapy in order to permit tumor immunity to be manifested after cell transfer. For example, surgical reduction of tumor masses diminishes suppressor T cells and by this facilitates the development of tumor immunity by adoptively transferred immune lymphoid cells.

Experiments with the use of adoptive immunotherapy combined with chemotherapy are presented in the next chapter. In their approach for the treatment of murine renal cancer the authors applied surgery or chemotherapy prior to adoptive transfer of lymphocytes resulting in a significant increase of cure rates. Their results suggest that this treatment modality should be studied in a clinical setting.

The therapeutic potential of cytokines in relation to preclinical and clinical studies is dealt with in the next chapter, showing that these proteins are most effective – if they are not directly cytotoxic cytostatic agents – in combination with other treatment modalities such as chemotherapy by preventing myelosuppression.

A further chapter reviews IL-2 as a therapeutic agent alone or in combination with adoptive immunotherapy (LAK trials) in murine and human malignancies. Additional data on this kind of therapy using local administration are presented in a further chapter.

Finally, the current understanding of the lymphokine–activated killer cell phenomenon is presented in chapter 9.

A quite different approach to stimulate antitumor activity is the use of anti-CD2 monocytes to stimulate lymphocyte function, which is surveyed in chapter 10.

This book presents reviews on the most recent approaches of immunomodulation for experimental cancer and also on the possibility of its clinical use. It can be recommended to investigators working in the field of experimental and clinical oncology.

M. Micksche, Vienna

Andrew W. Bruce, John Trachtenberg (eds) Adenocarcinoma of the Prostate

The book has been published as a member of the series “Clinical practice in urology” (series editor Geoffrey Chrisholm). The editors, who are acknowledged leaders in the field of urology, selected with great experience both the topics and the contributors.

The book consists of 13 outstanding chapters written by a leading expert in the field. The topics discussed are epidemiology, grading, tumor markers, hormone receptors, imaging techniques, staging systems, and pelvic lymph nodes (diagnosis and significance). Half of the chapters are devoted to the discussion of various ways of treatment. In this part the management of localized carcinoma of the prostate, the indications, methods and results of interstitial radiotherapy, of the so-called external beam radiotherapy, and of hormonal and chemotherapy of prostatic cancer are handled. The last chapter is devoted to the discussion of methodology and controversies of clinical trials in prostatic cancer, stressing

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that regardless of the treatment considered, very careful evaluation of the mechanisms will be required through the phase I, II and III clinical trials particularly because of the great variability of the natural history of the disease.
In a brief review it is impossible to handle and evaluate each chapter and each of the important statements. Therefore, I only point out some of those messages, which particularly caught my attention and which I think may be of general interest.

A noteworthy statement in the chapter on epidemiology is that the increase in incidence of the carcinoma of the prostate may be more apparent than real due to the more efficient diagnostics. This is supported by the fact that over the past 30 years there has been little change in mortality. The survival rate has improved, however, in which both earlier diagnosis and improved treatment play a role. Based on critical evaluation of the grading systems available at present, the need for a new approach in pathologic prognostication is stressed.

I have found the following statement particularly important: despite the advance in the fields of tumor markers and imaging techniques, routine annual rectal examination of at-risk patients will probably have a greater impact on prostatic cancer survival statistics than any other screening modality. At present, rectal examination seems to be superior even in judging local extension. I think the fact that spread through the lymphatic channels may occur even in clinically localized disease will also require more attention in the future.

The chapters dealing with the various treatment modalities are comprehensive, they try to be critical and objective. Instead of going into detailed evaluation of those chapters I think it is more useful to stress again that prostatic cancer is a heterogeneous disorder with varying biologic potential, which is correctly stated in almost each chapter of this outstanding book. Uniformity in classification and in clinical staging characterization is extremely important and especially critical in the interest of any further progress. Therefore, the statement made by the authors of the chapter dealing with the staging should always be kept in mind in a disease like prostatic cancer where the end results are so dependent upon case selection.

This outstanding, up-to-date book on prostatic cancer also points out the problems to be solved as well as delineating the possible new approaches.

This book is a work of art on the topic of prostatic cancer which must be read by everyone who is dealing with prostatic cancer in any capacity; clinicians, pathologists, experimentalists, and epidemiologists can gain much out of reading it.

K. Lapis, Budapest
Felix Mitelman
Catalog of Chromosome Aberrations in Cancer; 3rd ed.
Liss, New York 1988
XXXIII + 1,146 pp.; US $ 165.00
ISBN 0-8451-4248-8

The Catalog comprises 9,069 cases of neoplasms with abnormal karyotype identified by banding techniques until 1987. In the preface, the author gives information how this third edition has been improved by correction mistakes, improvements in contents and style. In the overview on data base of cancer cytogenetics, we find the list of 25 scientific journals from which the majority of the 2,156 references have been derived, furthermore, tabulation on the number of cases within the different disease entries and the sites of all solid tumors included in the Catalog. Following the chapter dealing with the use of Catalog, the author described all the chromosome changes published so far in human neoplastic disorders, from chromosome 1 till chromosome 22 and X and Y. In addition to the previous editions, references to molecular studies performed on cancer-associated chromosome aberrations are shown in tabular forms in a new section. Two new sections are dealing with
karyotypes containing homogeneously staining regions and double minute chromosomes. This new voluminous book enables the reader to quickly and easily overview everything published on a specific type of chromosome abnormality, and is indispensable for all human cancer cytogeneticists.

I. Palyi, Budapest
N.E. Breslow, N.Day
Statistical Methods in Cancer Research, vol. II
The Design and Analysis of Cohort Studies
IARC Scientific Publications, No. 82
Int. Agency for Research on Cancer, Lyon 1988
XII + 406 pp.; E 30.00
ISBN 92-832-1182-0

This book is a companion to the authors’ earlier volume on case-control studies. Together, they become the authoritative work for statistical methods for design and analysis of cancer epidemiology studies.

The authors establish the theoretical and conceptual bases of classical and modern methods. They demonstrate that many seemingly ‘black-box’ procedures are natural generalizations of simpler standard ones. The methods are applied to well-described sets of data from studies which are substantive interest. The extensive use of real examples can help readers bridge the gap between statistical theory and epidemiologic data analysis.

The first chapter is of broad interest to cancer epidemiologists. The authors demonstrate the historical importance of cohort studies. They clearly enumerate the benefits and potential pitfalls of economical alternatives to cohort studies. Practical issues including criteria for membership in the cohort and exposure and case ascertainment are discussed. The authors enumerate potential sources of misleading inference in cohort studies such as measurement error, the healthy worker effect and confounding.

Subsequent chapters contain more quantitative material. Major topics covered in detail include standardization, person-year methods, use of the SMR and PMR, Poisson regression, Cox regression, risk modelling, use of internal and external comparisons, and statistical efficiency of designs. One particularly challenging chapter addresses the important problem of identifying when a risk factor affects risk. This chapter includes a balanced discussion of the usefulness of multistage carcinogenesis models in epidemiology.

The close connection between case-control and cohort studies is a major theme of this book. Case-control studies are featured in examples and in chapters on temporal effects and design considerations.

The authors emphasize practical techniques for assessment of statistical models. They describe only some of the specialized interactive software needed to explore different model structures and to use tools such as residual and diagnostic plots.

The two books by Breslow and Day can function primarily as a reference. The inclusion of an index referring to both volumes is helpful in this regard. But, particularly because of the examples, more systematic study is required to receive the full benefits of this work. It can be difficult to regain the flow after some of the more technical sections; distinction between sections
of general interest and those aimed primarily at research biostatisticians would be helpful. Nonetheless, the persistent reader, whether interested in routine or state-of-the-science methods in cancer epidemiology, will be amply rewarded.1

S. Wacholder, Bethesda, Md.

1 The comments in this review do not necessarily reflect the position of the United States’ Department of Health and Human Services.


The 49th volume of Advances in Cancer Research contains 10 chapters dealing with recent results in research on oncogenes, Epstein-Barr virus (EBV) and the immune system, cell markers in the study of human hematopoietic neoplasia, natural-killer-cell-mediated cytotoxicity, human tumor-associated antigens, tumor promoters, anticarcinogenic action of protease inhibitors and oral contraceptives.

The treatise starts with the description of the interaction of retroviral oncogenes with the differentiation program of myogenic cells. The myogenic differentiation and the properties of avian retroviral oncogenes (src, fps, ros, yes, erbB, sea, mil, erbA, myc, myb, ski, ets) as well as mechanisms involved in the block of differentiation are described. The next two chapters deal with the oncogenes fos and abl, including a complex characterization of both. Unfortunately, new and interesting results on the interaction between fos and the newly detected avian oncogene jun have not been taken into consideration. The treatise continues with a chapter assigned to the EBV receptor, cell activation by EBV, cellular immunity during acute EBV-induced infectious mononucleosis and chronic asymptomatic EBV infection. The next chapter concerns the use of cell markers in the study of human hematopoietic neoplasia. The usefulness of glucose-6-phosphate dehydrogenase and restriction fragment length polymorphisms as marker systems in lymphoproliferative and myeloproliferative disorders as well as in marrow transplantations is presented. A further chapter of the treatise deals with new classes of tumor promoters (telecidin, alysia toxin, palytoxin). A historical background of the discoveries of these tumor promoters and their in vitro and in vivo effects are given. The mechanisms of tumor promotion by TPA-type and non-TPA-type tumor promoters is described. In the chapter Anticarcinogenic Action of Protease Inhibitors, different kinds of protease inhibitors are introduced. Their action on the inhibition of neoplastic transformation, on selective DNA and RNA amplification and on the induction of poly(ADP-ribose) formation is shown. Summarized, this book contributes to interesting problems, of cancer research. Numerous tables together with selected figures illustrate the treatise.

W. Uckert, Berlin-Buch