Further Section

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R.L. Souhami, J.S. Tobias Cancer and Its Management
According to the authors’ declared intent, the book has been written as an aid for all those who want to get a rapid grasp of basic concepts in oncology. It is to help medical students become familiar with the field of clinical oncology, and thus to close gaps in higher education in many countries. Last but not least, the book is meant to aid general practitioners and enable them to better cope with the multifarious problems of cancer prophylaxis and early recognition of cancer as well as the treatment of cancer patients. The book is not intended to provide a manual of clinical oncology; the authors refer to it as a very personal view on the problems of cancer and on the treatment of cancer patients. The book is not intended to provide a manual of clinical oncology; the authors refer to it as a very personal view on the problems of cancer and on the treatment of cancer patients. Unlike most of the comparable books of scientific world literature, compiled collectively, the present book has been written by only two authors. They are aware of this problem, but are expressly committed to the advantage of such a procedure, namely the very uniform style and the optimal didactic construction of the book. It deals with all basic questions of general oncology, such as tumor epidemiology, tumor biology, basic principles of radiotherapy and tumor chemotherapy. However, its main portion covers the individual organ tumors, including their etiology, pathology, diagnostics and treatment on a comparative basis. The book is a success! Unlike the comparable ‘many-men-books’ it is in fact readable; the illustrative material has been carefully selected and excellently matched. Thus, the reviewer in no way misses the diversity of collectively compiled monographies, but appreciates the uniformity and integrity of the book. The authors evidently have such a broad knowledge in oncology as a whole, that no serious limitations in the contents of the individual chapters have to be put up with in favor of the integrity of representation.

The reviewer expects the book to find a wide circulation, but every reader should realize that clinical oncology and responsible highly specialized care of cancer patients require a broad and profound knowledge. The sole study of a book like the present one, though well written, cannot replace long-standing efforts to acquire necessary experience.

St. Tanneberger, Berlin-Buch, DDR

K. Lapis, S. Eckhardt (eds.)
Lectures and Symposia on the 14th Int. Cancer Congress, vol. 1
Cancer Research and Treatment
Today: Results, Trends and Frontiers
This review describes volume 1 of the 14th International Cancer Congress held in Budapest 1986; it is entitled: Cancer Research and Treatment Today: Results, Trends and Frontiers. This contribution alone contains some of the major addresses of this congress starting from oncogene assessments and continuing through a biochemical analysis of current cancer chemotherapy. The role of the voluntary societies in the worldwide fight against cancer is emphasized by the contribution of Mr. Lane W. Adams, Immediate Past...
Executive Vice President of the American Cancer Society. One is impressed by the breadth of activities from Dr. Koprowski’s group dealing with various aspects of monoclonal antibodies and, as well, with the varied aspects of cancer epidemiology as described from Prof. Hirayama’s viewpoint. As a UICC Chairman of the Program for Epidemiology and Prevention, Prof. Hirayama brings not only his worldwide experience and that of his associates, but also the contributions of the UICC.

Additional important topics on cancer nursing, other aspects of therapy, and surgical oncology are recorded. The epidemiology of human retroviruses as presented at that time is remarkably current even today and, last but not least, those individuals looking to the future to provide information on health in cancer education were nobly addressed by Prof. Jerzy Einhorn and others. The mechanisms of metastases and other aspects of this Congress are covered in this very noteworthy edition. It would have been as always desirable to have this contribution as early as possible. With all good efforts, there always is some time difference. This volume does not suffer for any time differentiation between August 1986 and the time of this review in October of 1987. G.P. Murphy, Buffalo, N.Y.

Duncan Ackerly, Vincent Batty Clinics in Oncology, vol. 5, No.1, 86 Nuclear Medicine in Oncology

Bailliere Tindall, Eastborne 1986 X + 250pp., E 19.50 ISSN 0261–9873

Nuclear medicine is presented under the aspects of change caused by the introduction of the new diagnostic procedures. The focus of this presentation is directed towards therapeutic nuclear medicine and gives overviews on the use of radiopharmaceuticals in 4 different methods: the therapy with 131I-MIBG, which in some patients with pheochromocytomas and neuroblastomas causes a partial remission, the therapy of choice in differentiated thyroid cancer with 131I, the application of 89Sr chloride to relieve pain in patients with bone metastases, and the theoretical possibilities for a radioimmunotherapy.

In the field of diagnostics the use of monoclonal antibodies (MAB) deceives major interest. But new tumor-associated antigens and successes in the technology of antibody production with rare exceptions have failed up to now to gain essential benefits in the specific localization of tumors compared with polyclonal antibodies. The problem is the targeting of the tumor. The ratio of concentration of the MAB in tumor tissue to nontumor tissue reaches values near 5, but these values must be an order of magnitude higher to establish the procedure as diagnostic routine. Results are presented of the use of MABs, e.g. in GI cancer, melanomas, and gynecological tumors. MABs are accepted as a successful pharmaceutical for the evaluation of viability of tumor cells after irradiation or chemotherapy.

Bone scintigraphy as the most used nuclear medicine procedure in oncology is demonstrated by its use in therapy control, follow-up and staging. Gallium citrate and liver scintigraphy have their places.

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and the positron emission tomography is acknowledged for the use in pathophysiological research and therapy control.

To summarize, the book presents essential modern aspects of tumor-related diagnosis and therapy. Besides information on diagnostic procedures there are presented data on dose planning, evaluation of the effect of therapy of different radionuclides and the present state of MAB production and labelling. All the 12 chapters end with clear conclusions. The literature cited is
topical. A 13th chapter is concerned with magnetic resonance imaging in oncology. The book may be recommended to physicians in nuclear medicine and oncology.

J. Markwardt, Berlin-Buch, DDR


This book in its third edition is a short summary of practical guidelines for doctors and nurses actively involved in cancer chemotherapy. The volume consists of three parts: section I deals with the strategy of cancer treatment, basic concepts in cancer chemotherapy and clinical trials. Section II describes the characteristics of anticancer drugs. In section III data on organ oriented therapeutic strategy are reviewed and nursing considerations discussed. This section is associated with an additional chapter entitled ‘future directions’ in which new approaches in the development of anti-tumour drug therapy are enumerated. The reviewer feels that this small but useful book will surely continue to be popular among interested readers.

S. Eckhardt, Budapest


Finally, the 4th fully revised edition of this indispensable book is available. The so-called TNM classification, having come into existence about 40 years ago on the initiative of Pierre Denoix, has developed into an indispensable, precise classification method for almost all tumor situations. In the past 30 years, UICC has contributed considerably to the perfection of this system as well as to making its publication generally accessible; this was achieved by establishing changing committees of experts. The work of these experts has made the book a highly valuable tool for practical use and makes one desire that it will be used even more commonly in the future.

H. Wrba, Vienna


Gynecologic malignancies account for a considerable amount of cancer deaths in women. One among 70 female individuals develops carcinoma of the ovary, and cervical cancer is still a cause of the devastating mortality in developing countries. It is, therefore, an imperative necessity to review regularly recent progress in the management of gynecologic neoplasms. At the 29th Annual Clinical Conference sponsored by the University of Texas M.D. Anderson Hospital, this subject was extensively discussed, and the present volume is a summary of the contributions made by a series of prestigious authors. Among 38 papers 11 deal with ovarian, 8 with cervical, 1 with vulvar, 6 with endometrial cancer. 2 papers are devoted to trophoblastic disease, which is nowadays a curable malignancy. At the end of the volume progress in diagnostic and therapeutic methods is reviewed. The use of up-to-date imaging techniques and biological markers greatly improved diagnosis, staging and monitoring of the disease. New treatment modalities (use of monoclonal antibodies, hyperthermia) are hopeful approaches. The first and the last lectures deserve special attention. In the Heath Memorial Award Lecture F. N. Rutledge reported on the experience with pelvic exenteration, while the Jeffrey A. Gottlieb Memorial Lecture was held by G. Zubrod entitled: ‘Clinical Cancer Research – Sunrise or Sunset?’ In this closing lecture the
need for a ‘physician-scientist’ and their constant interaction is emphasized. This book is an excellent example of how effective such a collaboration could be. The updating of both clinical and experimental knowledge with regard to the management of gynecologic malignancies is largely facilitated by this review.

S. Eckhardt, Budapest

Norman C. Delarue, Henry Eschapas

International Trends in General Thoracic Surgery, vol. 1
Lung Cancer
Saunders, Eastbourne 1985
XX + 315pp.; E 47.25
ISBN 0–7216–1349–7

The authors’ aim of going through and updating some of the main problems presented by lung cancer diagnosis and treatment has been widely achieved. In 27 chapters an interesting subject is developed, which takes the reader from basic concepts of lung cancer histogenesis to the quality of life surgery offers the patient at present. The book has a proper size, with a standard typography and a suitable diagraming. The way of approaching each subject is also interesting, with its first presentation followed by a discussion of another author. In my opinion the book is an effective way of increasing the number of qualified opinions for each topic. In its 4 parts: (1) stratification, (2) surgery, (3) other treatments, and (4) special dif-

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Acuities, the authors propose their points of view on current subjects as the N2 stratification problem, which has lately, with the issuing of this book, worried other authors and has led to the proposal of a new Lung Cancer Classification [Haway, 1985].

In the chapter dealing with the lung track, a thorax surgeon of as well-known a capacity as Bulson states in a brief synthesis his personal experience, his point of view, favorable to previous radiation followed by surgery, for the treatment of this kind of tumor. Concerning chemotherapy and radiotherapy roles in lung cancer treatment, their scopes are approached with practical criteria, limited in most cases as regards survival.

I consider it as a very interesting book, with an updated bibliography (up to 1983–1984), not for beginners, but for experienced professionals who like to be well informed on the proposed subjects.

S. Barg, Buenos Aires

Joseph A. Smith, Richard G. Middleton

Clinical management of Prostatic Cancer

Being based on the critical analysis of literature data and summation of the author’s personal experience the book under review represents a manual for physicians.

For the purpose of early detection of prostatic cancer, the authors recommend introduction of annual prophylactic screenings of males over 50 with obligatory palpation of the prostate. The
patients with prostatic pathology, found during examination, should undergo aspiration biopsy of
the prostate. Trepan biopsy is recommended in difficult diagnostic cases.

The monograph summarizes recommendations on application of surgery, radio- and drug therapy
with regard to the clinical stage of the process, the degree of morphological differentiation,
patient’s age, and character of the concurrent diseases.

Precisely determined local tumour invasion and the status of regional lymph nodes must be taken
into account first of all in estimation of clinical stage of the disease.

Localized forms of prostatic cancer are recommended to be treated with radical prostatectomy or
external irradiation. Having analysed recent literature data the authors came to the conclusion
that cryodestruction of prostatic tumours proved to be less effective than was expected in the
early days of the method and may be recommended in exceptional cases.

Taking into a account that there is no significant improvement in survival results after endocrine
therapy the authors believe hormonal treatment to be feasible only in far advanced stages of the
disease.

The final chapter of the book is devoted to treatment of prostatic cancer complications.
The monograph will certainly appear a valuable guidebook for
a wide circle of physicians dealing with diagnosis and treatment of
prostatic cancer.

N. P. Napalkov, Leningrad
K. Lapis, S. Eckhardt (eds) Lectures and Symposia of the 14th Int. Cancer Congress, vol. 12
Endocrine Aspects of Malignancies
Int. Union against Cancer Akademiai Kiado, Budapest 1987 XII+293 pp.; US$ 625.00/13 vols
ISBN 963–05^1534–9

The proceedings reflect the interest which is paid to studying growth factors and their
interference with hormones. A correlation of the proliferative activity of estrogens with their
ability to stimulate synthesis of growth factors by cell has been considered in detail as well as the
problem of hormones ectopic production in tumour. Due to the fact that the autocrine secretion
of hormones is a property of normal cells (chorionic gondadotropin, corticotropin and
corticotropin releasing factor), detection of hormones in tumours should not always be
considered as a consequence of their ectopic production.

The studies on the role of steroid hormones receptors in mammary tumours have been
thoroughly summarized in several presentations.

The problems of tumours hormonotherapy are mainly considered in connection with the
treatment of cancer of the mammary gland and prostate. The efficacy and schemes of application
of antiestrogens, antiandrogens, progestins, aminogluthethimide, as well as gonadotropinreleasing
hormone agonists have been discussed. This treatment modality allows achieving regression of
tumour and metastases in patients with prostate cancer and mammary cancer in premenopause.

N. P. Napalkov, Leningrad
Gregory Bock, Joan Marsh (eds) Tumour Necrosis Factor and Related Dytotoxins
91097 X

The book presents contributions of the most important researchers in the field of tumor necrosis
factor (TNF), based upon lectures given at a symposium of CIBA Foundation.

The first series of articles is dealing with characteristics, production, release of TNF in general.
Administration of TNF for clinical purposes in centers all over the world is described, offering a
valuable survey of effects of TNF in vivo in tumor patients. An especially interesting feature is
the discussion at the end of each article, covering the main aspects of the article’s contents. The literature is comprehensive, containing the essential publications of this field; tables and figures are clear and illustrative.

The introduction to almost each article, presenting facts generally known such as discovery, history, effects on lipase, etc. of TNF, is somewhat a shortcoming, since it offers only what is ‘common knowledge’.

Summing up, it can be said that the book is a valuable tool for tumor immunologists as well as for anybody involved in tumor therapy.

Furlinger, Vienna
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Joe W. Gray, Zbigniew Darzynkiewicz (eds) Techniques in Cell Cycle Analysis

The monograph presents a collection of papers on different modern methods of analysis of the normal and malignant cell population kinetics.

The method of thymidine autoradiography, accepted by now as a traditional one, is described in the first two chapters. Its possibilities in determining one of the indicators of proliferative activity -labeled nuclei index – are shown. The method is sufficiently sensitive and allows identification of cells with minimal manifestation of metabolic activity. Applicability of the analysis of curves of labeled mitoses to the evaluation of homogeneity and heterogeneity of the cell populations on the basis of duration of the mitotic cycle phases is discussed.

Tumor growth depends on the presence of proliferating cells in the tumor. The next chapter presents a discussion on different methods of evaluating the proliferating cells ratio or the tumor growth fraction. The significance of the changes induced in the values of this index by different influences is considered from the viewpoint of selection of rational treatment of neoplasms.

The ability of the solid tumor cells to form colonies in the culture is widely used as a clonogenicity test in radiobiology and experimental chemotherapy. In vitro methods, which are used for the study of kinetics of tumor clonogenic cells, are described in chapter 4.

Many pages of the monograph are devoted to flow cytometry, which over the last decade has become a powerful method for investigating the cell population kinetics (chapters 5, 7, 10, 11). As compared to thymidine autoradiography, flow cytometry and the modifications expanding its potentials (multifactor flow cytometry, combination with a statmokinetic method and cytochemical methods of staining) are more advantageous in respect to the rate and accuracy of the analysis. For some systems, for instance, the rate of the cell flow is more than a million per minute. The latter makes this method particularly valuable in analyzing the rare subpopulations (for example, identification of stem cells of the bone marrow or early detection of leucemic cells in the recurrent disease). DNA distribution in cells, which provides information on the kinetics of the examined cell populations, i.e. distribution among the mitotic phases, is a most common parameter recorded by this method. To evaluate more precisely the duration of the cycle phases and the dispersion, volume of growth fraction in an asynchronously growing cell population, a method was developed for the estimation of radioactivity per single cell. Besides, this method permits estimation of the rate of DNA synthesis and its variations during the S-period.
In addition to the cell sorting according to the DNA content the method of flow cytometry allows identification and quantitative measurement of the fluorescent chemotherapeutic drugs in cells, the study of their transport and binding as well as a correlation analysis of these data and the effect of the drugs upon the cell metabolism and proliferation. Successful employment of flow cytometry in the analysis of cell kinetics results from the development of techniques for preparing single-cell suspension, which is an integral component of many current methods of the analysis of the cell population kinetics. Chapter 6 presents the discussion of different technical approaches to cell disaggregation, justification of the method selection and the requirements to the methods. To forecast possible effective modifications in the scheme of treatment of a cancer patient, it is necessary to have an adequate cell cycle model. Some mathematic models, used for the most complete analysis of the cell population kinetics, are described in chapter 8. In addition to the classification of the resting cells, which is based on the causes or mechanisms due to which this status emerges, chapter 9 includes a classification based on metabolic cell heterogeneity detected by the flow cytometry. Different other parameters characteristic of resting or proliferating cells which can be measured with this technique are discussed as well. The last chapter presents comparative analysis of methods for cell synchronization. Efficacy, benefits and disadvantages of the recently developed techniques are discussed, such as flow cytometry sorting, cell precipitation in the centrifuge, synchronization by means of the mitotic selection and hydroxyurea blocking. T. The book is a valuable manual for specialists involved in investigation of the cell population kinetics and can be strongly recommended to biologists and especially to those dealing with cancer research. N.P. Napalkov Leningrad