

## Book Reviews

### Pavel Klener: Clinical Oncology

Co-edited by the publishing houses Galén and Karolinum. 686 pp. (in Czech)

The reader gets into his hands a book whose form and technical execution would be unthinkable in our country only several years ago. By its excellent colour prints, high-quality binding and glossy paper it equals the best American textbooks. So much as concerns the form of the book.

As I am not a medical doctor, I am not qualified to evaluate the clinical part of the text. That is why I concentrated mainly on the introductory chapters devoted to the basic regulatory processes in the cell, aetiology and pathogenesis of the tumorigenic process, diagnostic methods and chemotherapy. All these chapters were elaborated by the principal author Professor Pavel Klener. The entire book, however, is very large and covers general oncology as well as specialized oncology devoted to the individual types of tumour diseases. For this reason, several authors took part in it, mainly our eminent oncologists. They are Jitka Abrahámová, Vuk Fait, Josef Mališ, Zdeněk Matějovský, Luboš Petruželka, and Jan Žaloudík.

Let's get back to the contents of the book. As mentioned above, the text is divided into two parts: general oncology and specialized oncology. I consider as extremely important and positive the correlation of both these parts wherever possible. Today, we are in possession of a good knowledge of the mechanisms of genesis of tumour cell growth, but unfortunately, this knowledge is not always applicable in clinical practice. The effort to point out the correlation between experimental research and clinical evidence represents the first step in such applications.

In the brief introductory chapter the author deals with the history and position of oncology in clinical medicine, with emphasis on the evolution of this field in the Czech Republic. A certain shock is brought by the second chapter, where statistical data show the general increasing trend in the frequency of tumour diseases and also the bad position of the Czech Republic in the cancer incidence as compared with the European average. This is also one of the reasons that make publication of this book valuable.

The third chapter is devoted to the basic processes regulating the cell life. The author anticipates in his reader the basic knowledge of biochemistry, and it is an admirable feature of his to be able to survey on a mere 27 pages the principles and significance of these processes. This chapter by itself represents a small manual in specialized molecular biology.

Dealing with the aetiology and pathogenesis of the tumorigenic process, the following chapter is well linked to the previous one. It is not always possible to correlate the corresponding findings and to support the individual hypotheses with the research results presented in chapter 3. It is, however, clear that the progress in this field is exceptional, although it not always leads to an application usable in the therapeutic process. We must therefore value the author's effort to systematically draw our attention to any available links. The recent results of the human genome study show how our genetic information abounds in dangerous genes and DNA sequences devoid of genes. A number of them undoubtedly influence, if not directly cause, the genesis of tumour diseases. There are many various genes and mutations involved in tumour formation, with a corresponding quantity of forms of neoplasms and the long following process of recognition of the causes of malignant conversion during cell division. The pathology of tumours and their classification are discussed in the brief chapter 5.

Recent science, in particular molecular genetics, constantly brings new data applicable if not directly in the therapy, then without doubt in the diagnostics of tumour diseases. And it is said that early diagnosis represents half a guarantee of success. The diagnostics of tumour diseases is dealt with by the author in chapter 6. Of course, as a practitioner he does not doubt the importance of the classical diagnostic methods. He, however, also mentions the most recent methods based on the new tumour markers and on the applications of molecular biology approaches.

Then follow chapters on the classification of tumour diseases based on their developmental stages and their prevention. While brief, this chapter is in my opinion most important, and it is again necessary to value the discussion on the biochemical aspects of prevention.

A large chapter is devoted to chemotherapy. On the one hand, the thorny path from the discovery of a compound with antitumour effects to the physician's consulting room and to the patient is described here. This path is very expensive, excluding small countries from the development of new drugs. An important part of this chapter represents description of different classes of cancerostatics, including the mechanisms of their effect. Again, the authors have succeeded in incorporating into this chapter the most recent data of molecular biology research. Then follow chapters dealing with hormonal therapy, immunotherapy and other therapeutic

tic methods. It is particularly in this chapter (14) dealing with the other therapeutic methods that, in to my opinion rather a modest and concealed way, the application of new approaches based on molecular biology research in clinical practice is described. These are in particular signal transduction inhibitors, inhibitors of cell-cycle regulating proteins and apoptosis inducers. I can only congratulate the authors on this chapter! Chapter 15 is then devoted to the undesired effects of antitumour therapy. It is evident that the struggle against cancer is often connected with a struggle against the undesired effects.

The progress in oncology is immense. By combining radiotherapy, surgical intervention and chemotherapy (in the largest sense) it is possible today to successfully fight a number of tumour diseases. Their incidence, however, goes increasing, and in many cases the physician remains helpless. This is in part caused by the fact that there are so many kinds of tumour diseases and each of them can have different causes. And these causes are, as a rule, linked with disorders of the basic life-regulating mechanisms, of which relatively little is known yet. Simply said, life is complicated in its mechanisms! I hope that I can express my conviction that

a principal breakthrough into the understanding of tumorigenesis (and thus into the principally new therapeutic approaches) will come with further genome research, in particular human genome research, and with the study of molecular mechanisms of maintenance, expression and transformation of genetic information. In my opinion, there are no other diseases so principally and in such a complex way linked with the basis of the mechanisms of life itself as the tumour diseases.

The book *Clinical Oncology* by Pavel Klener and co-authors represents an outstanding work of specialists, who correlated the findings of the most recent scientific research with the clinical aspects of oncological diseases. While evaluating this book I focused only on selected aspects of oncology. As a non-physician I cannot evaluate a great part of specialized oncology dealing with individual cancers, particularly from the clinical point of view. According to my opinion, the book represents a compendium treating the entire area of this field of medicine. Professor Pavel Klener and his collaborators have contributed an admirable piece of work.

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