

## Book review

### Endocrine-dependent Tumors

K-D Voigt and C Knabbe (Editors). New York: Raven Press. 1991. ISBN 0-88167-721-3.

This book forms part of the *Comprehensive Endocrinology* (revised) series of Raven Press Ltd., edited by L. Martini. The book starts with a review article by G. Dhon on epidemiology. Prostate cancer incidence differs greatly between various countries; the highest incidence is 120 times the rate of the lowest one. The black population of the United States has the highest rates by a wide margin. At the bottom of the list of frequency are the Asian populations of China and India. Case-control studies show that increased supply of protein and of fat raises the risk of prostate cancer. Cadmium exposure also is a risk factor and cadmium has to be considered a carcinogen for human prostate cancer.

Breast cancer is the most prevalent of all cancer diseases of women throughout the world, with 25-30% of all malignant female tumors being breast cancers. However, the incidence of breast cancer varies between 93.9 and 14 per 100 000 world standard population, with women in Hawaii and San Francisco at the top. Some East Europeans, Spanish and Italian registries, and the Asian populations of the United States are at the bottom of the list, and so are the populations of Japan, China and India. The worldwide incidence of breast cancer is increasing.

The next four chapters describe various aspects of prostate cancer, Shutsung Liao *et al.* give a detailed review of the molecular structure of androgen receptors. Of interest is the presence of different isoforms of this receptor in tumors. Besides the possibility of having more than one AR-gene, multiple forms of AR-mRNA can be generated by alternate splicing of AR-mRNA precursors. It is believed that some of these mutants may cause constitutive (hormone-independent) transcription activation of growth regulatory genes.

The treatment of prostate cancer is discussed in the chapter by K. Griffiths *et al.* Treatment with the LH-RH analogue Zoladex produces minimal side effects and it is clear that this depot preparation offers an innovative effective and alternative form of primary endocrine therapy. Current interest, however, centers on the clinical potential of a more aggressive approach to primary endocrine therapy, the 'complete androgen blockage', the simultaneous treatment with an LH-RH analogue and an antiandrogen.

In the chapter by C. Knabbe on growth inhibitors of breast cancer much attention is given to transforming growth factor  $\beta$  (TGF- $\beta$ ) peptides which represent a new class of growth-inhibiting and differentiation-inducing factors in human

mammary epithelial cells with both autocrine and paracrine potential.

J. A. Scott and W. L. McGuire list the molecular markers for prognosis in breast cancer: axillary nodal status, steroid receptors, thymidine labeling index, flow cytometry and oncogenes. There are several independent but interrelated factors that predict for relapse and survival in breast cancer. Axillary node status remains the major prognostic factor for long-term survival. There also appears to be a correlation between a high TLI (or high S-phase fraction by flow cytometry) and a higher relapse rate in premenopausal women with breast cancer. Aneuploidy also has been associated with a poorer prognosis. Estrogen receptor and progesterone receptor negative tumors commonly are aneuploid with a high fraction of cells in S-phase. The role of oncogenes in the pathogenesis of breast cancer is just beginning to be elucidated. The book concludes with chapters on endometrial and renal, urinary and bladder cancers.

It is interesting to see in a book like this how the problems of different endocrine-dependent tumors are alike to some extent. It is a useful book of reference for workers in the field.

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