Management of Prostate Cancer
Preface

Prostate cancer remains the first ranked cancer in men in Europe. Depending on national conditions, screening or early diagnosis may be proposed to 50–75 year old men by general practitioners and urologists. They will need to take into account factors like age, family history of cancer, co-morbidity, baseline PSA, prostate volume, PSA density and velocity; moreover, they will need to give these men all possible information about biopsy modalities and side effects and about management policies with possible advantages and drawbacks. The TNM classification, the Gleason score and the baseline PSA will determine the fate of the patients found to have prostate cancer, and these risk factors will enable physicians to provide the patient with a therapeutic road map, while tomorrow, genomic signature will hopefully optimize the indications of adjuvant treatment strategies in high-risk patients. Urologists and radiation oncologists have become allies thanks to the analysis of management failures, the results of phase III clinical trials, the multidisciplinary approach and the widespread application of national and/or EAU guidelines. Medical oncologists are faced with systemic disease, more particularly castration resistant prostate cancer, with a new promising pharmacopoeia: taxanes, vaccines, bone specific targeted agents and new hormonal manipulations. This book gives a complete and updated overview from epidemiology to therapeutic algorithms in the different stages of the disease. Physicians need to keep in mind that the more science they get, the more conscientious they need to be in order to improve the relationship with their patients and to promote diagnostic and therapeutic education.

Some patients with very low risk will be allowed to choose active surveillance and can still be treated later on at pre-defined triggers. Others can be oriented towards watchful waiting or deferred treatment in case of less aggressive tumours, due to limited life expectancy or older age. Urologists are mostly the first expert to announce the diagnosis, to discuss the therapeutic possibilities and to explain the aims and the technique of radical prostatectomy, but also of external irradiation and brachytherapy, with the advantages and potential drawbacks of each approach. Patients that are candidates for radiotherapy must be proposed to see a radiation oncologist to further discuss the implications and possible toxicity of radiation treatment and eventual hormonal manipulations. Those patients who wish to quickly eradicate the cancer can prefer surgery, while those who cannot be operated on, for technical or medical reasons, or are worried about the risk of incontinence or impotence, can prefer radiotherapy. The administration of eventual concomitant
androgen deprivation therapy is based on clinical stage, prognostic factors, WHO performance status, co-morbidity and sexual health. RTOG and EORTC trials have provided us with the data in favour of short-term hormonal treatment in case of intermediate or high-risk prostate cancer. Longer term androgen deprivation therapy will be advocated in case of locally advanced prostate cancer or very high risk localized prostate cancer. The risk of relapse after local treatment of the primary must be explained as well as the available salvage modalities; indeed, salvage radiotherapy is possible in case of biochemical relapse after surgery, while salvage radical prostatectomy, high intensity focused ultrasound or cryosurgery can be done after radiotherapy. In daily practice, open or laparoscopic (robot assisted) radical prostatectomy and intensity modulated radiotherapy remain the gold standard. More recently, tomotherapy or cyberknife are proposed by medical teams that have the feasibility, the quality assurance, the human resources and the possibility of auto-evaluation. The role of the pathologists is crucial in helping to define risk factors on the surgical specimen – tumour volume, tumour stage and Gleason grade, particularly margin status – to decide about the indication for immediate post-operative or deferred salvage radiotherapy.

When a distant relapse arises, LHRH agonists, or in appropriate situations antagonists, are the standard of care, given continuously or intermittently. Maximal androgen blockade will benefit a selected group of advanced prostate cancer patients. A number of recent investigations led to approaches that can give new hope to castrate resistant patients such as vaccines, docetaxel and cabazitaxel in symptomatic patients; CYP 17 inhibitors like abiraterone acetate and more potent antiandrogens like MDV 3100; and bone targeted strategies with biphosphonates rank ligand inhibitors and radium 223.

The battle against prostate cancer is based on a public health strategy. The cure rates are increasing and mortality is decreasing. The patients have a tremendous role to play, as heroes of their own life. The cancer may give them the opportunity to participate in clinical research, a kind of joint venture which may be beneficial for them today or for others tomorrow. A lot of patients who are not cured may today have an extended survival, prostate cancer becoming more like a chronic disease, and the challenge for patients and care-givers is to give time to the time with good quality of life.

Grenoble, France
Michel Bolla
Leuven, Belgium
Hendrik van Poppel
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