Introduction

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The number of younger patients presenting with early-stage prostate cancer has increased in recent years. As clinicians, we need to be able to guide our prostate cancer patients through a series of informed choices. Many patients appear to be better informed, with a wide range of medical information now readily available from various sources, including of course the plethora of facts and figures from the Internet.

The satellite symposium 'Prostate cancer: new profiles, new challenges' at the XVth Congress of the European Association of Urology in Brussels, Belgium, 12–15 April 2000, explored patient management issues and the faculty provided an update on the therapeutic options for patients presenting with early prostate cancer.

The developing case history of a fictitious patient in his early 50s was considered during the symposium. The case was presented as a video with professional actors. Each podium presentation by members of the faculty, published as articles in this supplement to *European Urology*, addressed the new issues and questions raised at subsequent stages in the patient's treatment.

The patient, a 54-year-old otherwise healthy, sexually active man, was concerned by reports in the media informing him that he was at greater risk of developing prostate cancer because there was a family history of the disease. Routine diagnostic testing revealed the patient's

prostate-specific antigen (PSA) level to be 16 ng/ml while no tumour was palpable on digital rectal examination. A sextant biopsy guided by transrectal ultrasound was performed and showed adenocarcinoma in four out of six cores. A negative bone scan confirmed that the cancer was non-metastatic. On the basis of this information, the urologist recommended a radical prostatectomy.

While radical prostatectomy is associated with a very low level of mortality, it is not without morbidity. A significant proportion of patients will suffer from loss of erectile function and/or incontinence after surgery, and in some patients the disease will recur. In the first presentation, Professor Huland discussed selection of patients for radical prostatectomy. Recommendation of curative therapy should always be based on knowledge of the untreated course of the disease, and Professor Huland briefly reviewed the available studies on the natural history of early prostate cancer. The long natural history makes factors such as patient age, life expectancy and co-morbidity important when selecting candidates for radical prostatectomy. Because T1/T2 tumours represent a heterogeneous group, a number of algorithms have been introduced to combine various tumour parameters to more accurately predict histopathological stage and outcome. Professor Huland presented the CART analysis (Classification and Regression Trees) developed by his group. In this analysis, careful assessment of six systematic biopsies with emphasis on number of positive biopsies, number of biopsies with Gleason grade 4/5 and number of biopsies with

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>50% Gleason grade 4/5, allows patients to be separated into risk groups with regard to capsular penetration, lymph node metastasis, and outcome. The patient in our case study had Gleason grade 4 in three of the four positive biopsies, with >50% Gleason grade 4 in one biopsy. In the CART analysis, this meant that the patient was in an intermediate-risk group for having lymph node metastases.

After deciding to accept the recommendation of a radical prostatectomy, our fictitious patient enquired about the availability of treatments intended to increase the chances of a cure with the prostatectomy. In the second presentation, Professor Van Poppel discussed the benefits and drawbacks of neoadjuvant hormone therapy and surgery. Professor Van Poppel summarized the results from trials of neoadjuvant hormone therapy in patients diagnosed with cT1–T2 and cT3 prostate cancer and undergoing radical prostatectomy. Despite clear evidence that neoadjuvant hormone therapy significantly reduces the incidence of positive margins, follow-up data show that time to PSA recurrence remains unchanged. Professor Van Poppel stressed that currently there are insufficient data to conclude whether neoadjuvant hormone therapy confers a survival advantage or provides benefits to some patients undergoing surgery. Longer follow-up of ongoing studies and further investigations into the optimal length of neoadjuvant therapy are required to fully evaluate the effects of hormonal therapy before radical prostatectomy.

At this point in the case history, the patient and his urologist proceeded with radical prostatectomy.

Following an uneventful postoperative recovery, the patient was informed that the histological examination had revealed lymph node metastases. The third presentation by Professor Newling highlighted the long-standing controversy of immediate versus deferred hormone treatment for locally advanced disease. Professor Newling presented data from five studies of patients with locally

advanced prostate cancer, who were randomized to receive immediate or deferred hormone therapy. The more recent and better designed studies, using well tolerated hormone therapies, strongly point to an advantage for early hormone therapy in terms of survival and disease progression. In his conclusion, Professor Newling recommended that our fictitious patient start hormone therapy.

The treatment options commonly used in locally advanced prostate cancer are radiotherapy or castration. Radiotherapy has a high failure rate and castration impacts on quality of life, a factor that is particularly relevant to younger men who can expect years of treatment. In the final presentation, Professor Abrahamsson discussed the role for the non-steroidal antiandrogen, bicalutamide ('Casodex') 150 mg, as oral monotherapy. Studies on the role of bicalutamide as adjuvant to radical prostatectomy or radiotherapy in early prostate cancer are ongoing. However, Professor Abrahamsson was able to report on the mature results from a combined analysis of two major studies in patients with previously untreated locally advanced prostate cancer. This combined analysis indicated that bicalutamide has a survival outcome which is not significantly different to that of castration. In addition, bicalutamide has significant quality of life benefits over castration with respect to sexual interest and physical capacity. Therefore, bicalutamide provides a practical alternative option for the treatment of locally advanced disease.

With the increase in early diagnosis, urologists are presented with younger, sexually active patients for whom quality of life is an important issue. This symposium exemplified how a patient often has to pass through a whole sequence of informed choices. The growing challenge that faces clinicians today is the provision of clear and concise information regarding the treatment options available for these patients.