In recent years, a clear trend towards ageing, in society, six- to six-and-half-year-olds is evident. This is due to many factors, inter alia, ever more efficient, oncological treatment. The above also impacts on that cross-section of our patients who are simply getting older.

This situation requires a special approach at each stage of the treatment process. Adequate diagnostic tools, a proper assessment of risk factors, the choice of appropriate treatment modalities, must be performed, both during and after surgery and appropriate follow-ups – all these topics were discussed in papers presented during EAU16 in Munich. As the space available in this edition is limited, I would like to present just a few selected papers.

A research group from Japan (Shiota et al. #460) analysed the medical history of patients with prostate cancer who had been treated with radiotherapy, surgical therapy and urinary diversion (UD). During the median follow-up period of between 45-52 months, secondary bladder cancer (BC) occurred in 14 (2.2%), 5 (1.1%), and 0 (0%), respectively, of those patients whose prostate cancer had been treated with radiotherapy, surgical therapy and ADT. Age and smoking history were significant risk factors in secondary bladder-cancer, post-radiotherapy. However, most interestingly, ADT, in combination with radiotherapy, did not affect the incidence of secondary BC. The authors concluded that there is some significance in the incidence rate of secondary BC, post-radiotherapy; in some patient’s smoking history may be helpful in navigating therapeutic selection for prostate cancer.

Data has been presented (Dell’Oglio et al. #899, Frihner et al. #850) in which individual co-morbid conditions from the Charlson Comorbidity Index (CCI) are independently associated with the results of radical cystectomy or prostatectomy. One of the above authors researchers discovered that four of the 12 conditions in the CCI, such as chronic pulmonary disease, diabetes without complications, cerebro-vascular disease and congestive heart failure, are the most prevalent groupings of co-morbid conditions, post-radical cystectomy. The other group of research, many patients, that, based on their analysis, age, anemia, pectoris, chronic lung disease, peripheral vascular disease, cerebrovascular disease, diabetes mellitus, moderate or severe renal disease, current smoking and ASA class 3-4, are independent predictors of competing mortality, post-radical cystectomy or prostatectomy. Despite these results, they have created a combined mortality index, which could be used to predict competing mortality in candidates for radical cystectomy or radical prostatectomy.

Recently, sarcopenia has been discovered to be a novel, objective and pre-operative prognostic factor in various types of cancers. There were two abstracts (Hirazawa et al. #855, Fukushima et al. #880) in which the authors evaluated the prognostic significance of pre-operative parameters, including sarcopenia, in patients who had undergone radical cystectomy (RC) or neoadjuvant-urethroplasty. Based on the results of the second group, sarcopenia, among other parameters, such as clinical T stage, neoadjuvant chemotherapy ratio, was a significantly independent predictor of an adverse prognosis, post-RC.

In spite of this, RC still remains the gold standard in the treatment of muscle-invasive bladder cancer (MIBC) and for that proportion of elderly patients who are unfit for RC because of its significant morbidity rates. Doctors in Japan (Fujii et al. #866) have evaluated the oncological and functional outcomes of MIBC treatment with bladder-sparing protocol. This protocol consists of debulking TURB followed by dose-early-radiotherapy and, for those patients showing no massive residual disease, radical cystectomy. Patients achieved excellent, five-years survival results (MIBC-RFS, CSS, OS) regardless of the age of the patient, some of whom were more than 75 years old while others were less than that age. Both elderly and younger patients maintained a high QOL with an intact and functioning bladder after their treatment.

Partial nephrectomy (PN) is the gold standard for small renal masses. A German team (Pup et al. #964) attempted to discover which groups of patients profited most by undergoing PN and for whom radical nephrectomy (RN) is still a good option. The team came to the conclusion that there were several significant differences in OS between PN and RN patients. Elderly patients and those patients suffering from hypertension at diagnosis, benefit significantly from NSS. Thus, the presence of cardiovascular risk factors and comorbidity should be the main criteria in decision-making, ahead of surgery.

When RN is performed, one of the more important issues is long-term renal function. The Japanese research team (Kawamura et al. #357) presented their results, which were taken from over 700 patients who had undergone RN. Overall, the mean eGFR, which decreased at one-year, post-RN, recovered to 51.7±4.9/ml/min/1.73 m2 at 10 years, post-RN. Statistical analysis revealed that more advanced age (≥ 65 years) and diabetes mellitus were independent risk factors for severe renal impairment. They concluded that for those patients of special attention is needed.

There is an emerging effort among urothelial surgeons to minimize the impact of urethral reconstruction. From a patient’s perspective the hospital stay is important and the question arises whether urethroplasty can be done as a day-care procedure.

Zaid et al. (#32) assessed the safety of urethroplasty as day-care surgery (DCS) versus urethroplasty under hospital admission (HA). Emergency room visits (7.8% vs. 15.4%), readmission rates (4.5% vs. 7.4%), and, 0 (0%), respectively, of those patients whose patients who had undergone RN. Overall, the mean eGFR, which decreased at one-year, post-RN, recovered to 51.7±4.9/ml/min/1.73 m2 at 10 years, post-RN. Statistical analysis revealed that more advanced age (≥ 65 years) and diabetes mellitus were independent risk factors for severe renal impairment. They concluded that for those patients of special attention is needed.

A further effort to spare the surrounding tissues during urethroplasty whenever possible. Many, especially young patients, dislike scars on the penis after penile or penileubular urethroplasty. Martinis et al. (#158) reported a perineal approach with gentle incision to access the penile urethra without scars at the penis itself (“Kulkarni”-technique). The ultimate goal is to preserve the penile appearance. Of 143 patients, 85.4% were treated successfully after a median follow-up of 51 months. Moreover, 92.1% were satisfied with the penile appearance after urethroplasty.

Treatment of lower urinary tract morbidity after radical prostatectomy

Strictures at the vesico-urethral anastomosis after radical prostatectomy are a challenging problem. Historically, many patients were presented with intermittent dilatation and if this was not possible by a suprapubic catheter or by another form of urinary diversion. Rosenberg et al. (#159) reported the outcome of endoscopic incision of vesico-urethral stenoses (VUS) in 86 patients with a median follow-up of 22 months. Success rate was only 38.4%, but this is in line with more recent studies reporting on the outcome of endoscopic incision for urethral strictures. De novo incontinence was reported in 14%. Median time to recurrence was 3 months. In case of a highly recurrent stricture despite dilation or endoscopic incision, transperineal urethralplasty (TPRA) can be attempted. An advantage is the access to the stricture by tissues that have not been incised.

Furthermore, TPRA attempts a complete resection of the stricture, which is not the case endoscopic incision. Schüttfort et al. (#325) described the outcome of 25 patients with a median follow-up of 4.5 months treated by TPRA for highly recurrent (≥ 2 previous endoscopic attempts) VUS. Success rate was 85.1% and 38.8% reported worsening of the incontinence. However 89% of patients were already incontinent before TPRA and were later treated by an artificial urinary sphincter (AUS). Improvement in quality of life and patient satisfaction was high (respectively 75 and 88%). As mentioned, there is a risk of urinary incontinence after treatment. This can be treated by implantation of AUS. Buggia et al. (#321) reported on the outcome of AUS in patients previously treated for VUS after radical prostatectomy. AUS after endoscopic treatment (n = 50) and TPRA (n = 9) resulted in a favorable result (“dry” and unobstructed) in, respectively, 80 and 89% of cases. It is important to leave a sufficient time interval (at least 3 months) between treatment of VUS and implantation of AUS in order to rule out an early recurrence of VUS.

Timing of graft in two-stage urethroplasty

Complex penile strictures are usually treated by a two-stage urethroplasty in which the urethral plate is augmented or resected and replaced by an oral graft. This graft is classically incorporated during the first stage. However, there is a major concern as an oral graft is not used to a dry environment which can lead to graft contraction and need for additional procedures. Therefore, it might be better to incorporate the graft during the second stage. This was the subject of a study by Kulkarni et al. (#356), in which the graft was incorporated during the first stage (n = 38) or the second stage (n = 30). Stricture recurrence was equal in both groups (n = 10 and 30%). No patient needed an additional procedure because of graft contraction, fistula or dehiscence when the graft was incorporated during the second stage. However, 25%, 20% and 10% of patients needed, respectively, an additional procedure for graft contraction, fistula or dehiscence when the graft was incorporated during the first stage.