



## Uro-oncology 2018: new horizons, new treatment options, improved patient outcomes

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The year 2018 is an exciting time to work as a uro-oncologist. Therapies have developed rapidly in the last year.

The papers collected in this issue of *memo* review the current standards and future perspectives in uro-oncology with a focus on prostate, bladder and renal cell cancer, including practice guidelines with a patient case report. This case report reflects the potent drugs that we can offer our metastatic renal cell cancer patients (mRCC) over a very long treatment period including multimodal treatment that leads to an impressive overall survival time with excellent quality of life [1, 2].

Prostate Cancer Guidelines [3–6] advise us to hit hard from the very beginning—already in the hormone-sensitive stage of metastatic prostate cancer (mHSPC) with high volume disease. The CHAARTED and STAMPEDE trials emphasized the use of early chemohormonal treatment with six cycles of docetaxel and androgen-deprivation therapy (ADT) [7–9] in the high-volume disease population. Patients with mHSPC, who are not candidates for docetaxel, have another treatment option since the publication of the LATITUDE study [10]. This study showed a benefit for abiraterone plus ADT in mHSPC patients vs ADT in progression-free survival and overall survival. The median time to progression is 36 months, so the costs and the reimbursement of abiraterone will be an upcoming discussion. The costs for docetaxel are relatively low and after 18 weeks, this treatment with manageable and well-known chemotherapy side effects is completed. Abiraterone certainly has less side effects, but we do not know whether there are

any long-term toxicities like cardiac and endocrine complications that these very often multimorbid patients will develop over the long treatment period. And the other question is, whether we should go for the more toxic drug first, when the patient still has a good performance status (PS), and then use abiraterone. Christopher Sweeney cited the musician Eminem in his debate as an advocate for docetaxel at this year's ASCO GU meeting in San Francisco: “One shot—one opportunity”. Therefore, we should not miss the option to give docetaxel as a potent drug to our prostate cancer patients during their course of disease. What could be the next step to further improve the outcome? Will we combine chemotherapy, ADT and abiraterone up-front in the future? And most likely enzalutamide will also work in the hormone-sensitive setting (ENZAMET trial [11]), but data are not expected before 2020.

MRCC and metastatic bladder cancer (mBC) are tumors where checkpoint inhibition is an important treatment option in 2018. This year we will expect the licensing of ipilimumab and nivolumab as first-line therapy in intermediate- and poor-risk patients with mRCC [12]. Treatment options have been well established in this disease with multiple tyrosine kinase inhibitors. Can we cure these patients with the combination of ipilimumab and nivolumab? Complete remission rates are still low (4%) and no prognostic markers have been developed so far. Programmed cell death ligand (PDL)-1 expression has not been shown to be a good guidance in selecting patients for checkpoint inhibitors.

In mBC we have three checkpoint inhibitors available in Europe: pembrolizumab [13, 14] and atezolizumab [15, 16] in cisplatin-ineligible patients in first- and second-line after cisplatin failure, nivolumab only as second-line option [17]. The response rate and prognosis improved dramatically with these new

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agents. The second-line options with taxanes [18] or vinflunine [19] were limited with low response rates. Moreover, most patients' PS did not allow to apply further treatment. In 2018 we have treatment options to offer for the frail and cisplatin-ineligible patients with PDL-1 and PD-1 inhibitors.

Immuno-oncology plays an important role in uro-oncology, since especially mBC and mRCC have a high mutational burden [20].

I am proud to work as an uro-oncologist in this exciting era.

**Conflict of interest** U.M. Vogl declares that she has no competing interests.

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