

EDITORIAL



Climbing the ladder of success in testicular cancer

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For decades, the story of testicular cancer has been a story of oncological success. The initial boost was the advent of cisplatin-based chemotherapy. Further improvement has followed the path of modern oncology, by identifying the pitfalls and difficulties of the disease, through improved diagnostic means and supportive care, and also by continuously refining treatment strategies for subsets of patients.

It was realized early that national and international collaboration was necessary to develop and standardize disease classification and treatment strategies for such a rare disease. A very recent, excellent example of such joint efforts is the IGCCCG consortium update on prognostic factors for disseminated germ cell cancer (GCC). With an international database of more than 12 000 patients the update could validate the original 1997 IGCCCG prognostic classification, and also show that modern era germ cell cancer management further improves the outcome of disseminated disease [1,2].

The treatment advancements in testicular cancer management are unique, not only due to the excellent results but also in how instrumental the collaboration between the surgical and medical oncology societies has been. Even if germ cell cancer was a model for how medical oncology would revolutionize the management and outcome of disseminated cancer, the importance of surgical intervention has always been understood to be an integral part of the treatment strategy.

In the current issue of *Acta Oncologica*, Rosenvilde et al. presents a systematic review of the oncological outcome and surgical complications of post-chemotherapy retroperitoneal lymph node dissection (PC-RPLND) in patients with non-seminoma (NSGCT) [3]. There is consensus in international guidelines that patients with residual lesions exceeding 10 mm post-chemotherapy should undergo PC-RPLND due to the risk of teratoma or viable cancer. However, as concluded by Rosenvilde et al., the lack of larger studies on the extent of surgery related to patient criteria and potential risk factors for residual cancer or teratoma has made it difficult to clearly define the optimal PC-RPLND procedure for the individual patient.

The challenge of PC-RPLND parallels the general challenge for the vast majority of GCC patients, namely, to reduce the treatment burden and the risk of long-term consequences of

the disease and its treatment. Despite the exclusion of patients with minimal residual disease, PC-RPLND remains an overtreatment for the 30–50% of the patients with no residual pathology in the surgical specimen. This issue's review puts specific focus on surgical complications related to the extent of surgery, i.e., bilateral vs unilateral. The observed lesser risks associated with unilateral surgery, including the risk of retrograde ejaculation [4], emphasizes the need of improved patient selection.

The further improvement of PC-RPLND management needs to account for several aspects. Can we improve selection of patients for whom surgery can be omitted? Can new generations of tumor markers, such as miRNA, provide support that has not yet been possible with functional imaging [5]? Can we reduce the morbidity for patients who need PC-RPLND?

By relating pre- and post-chemotherapy tumor burden to the pathological finding and the risk of recurrence the recently published prospective Swenoteca study RETROP [6] suggests how patients with limited residual disease (10–49 mm) can be selected for a unilateral template resection.

In Denmark, Norway, and Sweden PC-RPLND has been centralized to a few centers of excellence. Such centralization is likely to improve both surgical competence and concordance to guidelines. Furthermore, it facilitates clinical studies on patient selection and of surgical techniques, for example on robotic surgery.

Despite the excellent outcomes, there is a strong need for continued improvement to optimize quality of life for testicular cancer patients. The well-written review in the current issue of *Acta Oncol* puts the finger on one of several aspects of GCC management for which further studies and collaboration will benefit our patients [3].

Disclosure statement

No potential conflict of interest was reported by the author(s).

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