

Pushing the boundaries: emerging role of radical prostatectomy as part of multimodal treatment for oligometastatic prostate cancer

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Our understanding of the role of radical prostatectomy (RP) in prostate cancer (PC) patients is constantly evolving. RP has emerged as an established therapeutic choice for locally advanced PC, an area previously designated as an exclusive domain for radiotherapy (RT) [1]. Currently, we are witnessing a progressive expansion of the boundaries, as RP is now being considered an option for oligometastatic prostate cancer (oMPC) patients, as well.

A recent study conducted by Pellegrino et al., analyzed data from 68 oMPC patients who underwent either open or robot-assisted radical prostatectomy (RARP) with extended pelvic lymph node dissection (ePLND), with or without metastasis directed therapy (MDT) [2]. Neoadjuvant hormone therapy was administered to 41.2% of the study population. The study findings support the safety and feasibility of RP as a therapeutic option for oMPC. Complications graded Clavien-Dindo ≥ 2 and ≥ 3 were reported in 23.5% and 16.2% of patients, respectively, and 64.7% of men achieved recovery of urinary continence during the median

follow-up of 73 months. Importantly, the study demonstrated a significant superiority of RARP over open RP in terms of these outcomes. Furthermore, the addition of MDT to RP was associated with improved overall 7-year survival rates (93% vs 75%, $p = 0.04$). However, significantly higher rates of adjuvant radiotherapy (100% vs 38.6%) and adjuvant hormone therapy (91.7% vs 61.4%) in the MDT cohort warrant careful interpretation of this result. Nonetheless, the notable finding of reasonably low complication rates in oMPC patients undergoing RP, along with the demonstrated promising survival outcomes, especially if combined with MDT, contribute valuable evidence to the ongoing debate over the role of RP as part of multimodal treatment for oMPC [2].

In recent years, numerous studies have investigated the role primary tumor treatment in oMPC patients and some beneficial effects of RT in this setting have been well described in the literature [3]. RT, being a non-invasive procedure with relatively delayed adverse effects, might have been considered the most

favorable option for clinical trials involving patients with a prognosis deemed worse than that of non-metastatic PC cases. Simultaneously, some urologists may approach the concept of performing RP in oMPC patients with caution, given the anticipated local infiltrates and potentially challenging surgical course, as well as concerns regarding whether improved oncological outcomes would outweigh the risk of disabling complications. However, multiple recent papers, including the study by Pellegrino et al., are reshaping the landscape of this intriguing topic. As recently demonstrated in a systematic review by Yanagisawa et al., cytoreductive prostatectomy for metastatic prostate cancer may offer promising oncological and functional outcomes, with a limited risk of complications [4]. Moreover, retrospective studies based on data from the Surveillance, Epidemiology and End Results (SEER) demonstrate that survival in metastatic PC patients who underwent RP may be superior to those treated with RT [5, 6]. The results of the recent trials (TROMBONE

[ISRCTN 15704862] and NCT01751438) are highly anticipated, while the SIMCAP (NCT03456843) and g-RAMPP (NCT02454543) trials are ongoing. Leaving the considerations on survival behind, in our opinion, an important point of the study by Pellegrino et al. is that the complication rates were significantly reduced with RARP, compared to patients who underwent open RP. Thus, a vital message of the paper, to be read in the context of the witnessed advent of the robotics era, is that fear of complications, which presumably prevents urologists from performing RP in oMPC patients, may rapidly fade out in light of the high precision achievable with RARP. Hence, the expected feasibility and safety of RP, especially if reinforced by potentially promising results of clinical trials, may soon lead to establishing RP as an inherent part of multimodal treatment for oMPC patients.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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