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## Letter to the Editor

## Balancing the Effects of COVID-19 Against Potential Progression and Mortality in High-risk Prostate Cancer

The COVID-19 pandemic is posing challenges in cancer treatment, with priorities, methods, and timing needing to be abruptly redefined. Surgery is recognized as the gold standard treatment for several malignancies, including prostate cancer (PCa). With all health care systems focused on virus control, oncologic surgery has been reduced worldwide.

For how long is it safe for a PCa patient to have his surgery deferred? As PCa is a heterogeneous disease and most hospitals worldwide are affected by COVID-19, prioritization of cases could take advantage of stratification into risk classes.

High-risk PCa is still diagnosed in almost 27 000 patients annually in the USA, representing 15% of all cases [1]. By the end of the last decade, a higher rate of aggressive PCa patterns (Gleason  $\geq 4 + 4$  and high D'Amico risk) was detected; the 2012 US Preventive Services Task Force (USPSTF) recommendation against screening may have contributed to this occurrence [2].

As part of a multimodal approach, surgery is still the basis of treatment for high-risk PCa. A recent meta-analysis by Wang et al [3] highlighted the role of radical prostatectomy (RP) in this setting: surgery was associated with higher overall and cancer-specific survival when compared to radiation therapy (RT). Apart from the theoretical advantage of RT in eliminating local micro-metastases, practice shows that a real multimodal approach is probably applied for patients choosing RP, whereas patients choosing RT first rarely receive salvage RP. Recognizing the role of surgery in high-risk PCa, which are the harms of delayed RP?

The answer to this question can be derived from surgical experience in the post-2012 USPSTF setting at a referral center [4]. Cases with aggressive PCa treated with RP are prone to impaired functional outcomes and a higher rate of biochemical recurrence at 12 mo, despite no change in surgical margin status [4]. The latter—representing effective tumor excision but impaired oncologic follow-up—may reflect the harm of aggressive PCa, deriving either from delayed detection or delayed treatment. If a delay would affect outcomes and RP needs to be carried out in a timely manner, how can clinicians ensure a safe intervention while

minimizing the risk of COVID-19 infection during hospitalization?

First, to reduce the burden of surgical interventions and their impact on patient health, high-risk PCa patients should be referred to high-volume centers and surgeons, with the likelihood of a fast discharge and use of an enhanced recovery after surgery (ERAS) protocol. Furthermore, the decision on whether or not to perform extended nodal dissection in the current scenario could be debatable given the lack of certain oncologic benefit and the possible role of prostate-specific membrane antigen-based positron emission tomography for preoperative nodal staging [5]. Currently, pelvic nodal dissection is the major driver of postoperative complications, carrying a 10% risk of symptomatic lymphocele [5]. Complications may lead to a delay in adjuvant treatment and, at worst, leave the patient prone to postoperative infection due to bacterial or viral transmission.

Second, safe surgery should be performed in COVID-19– free facilities, otherwise, according to reports from Wuhan, postoperative mortality can reach 20% [6]. In addition, according to the Italian experience, preservation of COVID-19–free areas within mixed facilities turned out to be impossible: both caregivers and patients can bring the infection while asymptomatic, contributing to further nosocomial spread. Achievement of a real COVID-19–free facility should rely on a preoperative quarantine period and laboratory testing to confirm the absence of COVID-19 before entering the institution for both hospital staff and oncology patients.

As the current pandemic poses unique challenges, unique replies should be pursued to avoid COVID-19 transmission while ensuring appropriate cancer treatment and timing during this unpredictable emergency.

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## References

- Chang AJ, Autio KA, Roach III M, Scher HI. High-risk prostate cancer—classification and therapy. Nat Rev Clin Oncol 2014;11:308–23. http://dx.doi.org/10.1038/nrclinonc.2014.68.
- [2] Onol FF, Ganapathi HP, Rogers T, et al. Changing clinical trends in 10 000 robot-assisted laparoscopic prostatectomy patients and impact

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of the 2012 US Preventive Services Task Force's statement against PSA screening. BJU Int 2019;124:1014–21. http://dx.doi.org/10.1111/bju.14866.

- [3] Wang Z, Ni Y, Chen J, et al. The efficacy and safety of radical prostatectomy and radiotherapy in high-risk prostate cancer: a systematic review and meta-analysis. World J Surg Oncol 2020;18:42. http://dx.doi.org/10.1186/s12957-020-01824-9.
- [4] Bhat K.R.S., Covas Moschovas M., Onol F.F., et al. Trends in clinical and oncologic outcomes of robotic radical prostatectomy before and after the 2012 US Preventive Services Task Force recommendation against PSA screening. A decade of experience. BJU Int. In press. https://doi.org/10.1111/bju.15051.
- [5] European Association of Urology Guidelines. 2019 In: https:// uroweb.org/guidelines/
- [6] Lei S., Jiang F., Su W., et al. Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection, EClinicalMedicine. In press. https://doi.org/ 10.1016/j.eclinm.2020.100331.

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