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Re-envisioning Patient Education and Public Awareness of Urological Cancers at the Time of the COVID-19 Pandemic

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In a recent issue of *European Urology Open Science*, Khene and colleagues [1] explore the trends in public online searches for the most common urological cancers during the COVID-19 pandemic. The authors performed a retrospective analysis using the Google Health Trends online tool, extracting data on the trends for online searches for prostate cancer, kidney cancer, and bladder cancer for five countries (Italy, UK, France, Sweden, and USA). The most significant finding of the study is that during the COVID-19 pandemic (from January 12, 2020), worldwide online interest decreased significantly for all urological cancers, especially prostate cancer, in comparison to the same periods in 2018 and 2019, with the most important decline observed in the USA [1].

Although several previous reports have addressed the impact of the COVID-19 pandemic on a variety of facets related to urological practice [2–4], the perspective of contemporary patients and the general public on the trade-off between COVID-19-related and genitourinary cancer-related risks remains underinvestigated.

Incoming waves of the pandemic during the past 2 yr have not only prompted profound transformative changes in health care organizations, forcing prioritization of elective surgical procedures and outpatient clinical activities [5] but have also probably (irreversibly?) modified the patient standpoint regarding patterns of care and the risks associated with the most common urological cancers [6]. Since early 2020, public health communication strategies have largely been focused on information campaigns regarding the health-related risks of COVID-19, as well as the impact of vaccination on viral spread within the population. In these challenging times, the interest of patients and the general public in health issues other than the COVID-19 pandemic (such as the early diagnosis and treatment of urological cancers) could have understandably been compromised. A previous study conducted at a tertiary academic center in April 2020 showed that approximately one in three patients with urological cancers scheduled for elective surgery would have deferred the planned intervention and considered the risk of COVID-19 potentially more harmful than the risk of delaying surgery [6].

While these findings might not be entirely generalizable to the current scenario (considering the widespread COVID-19 vaccination campaigns), they reinforce the concept that patients' perceptions of COVID-19-related risks might significantly influence urological practice. As "Dr. Google" has progressively become the first patient advisor for obtaining immediate answers regarding health-related problems, even before referring to general practitioners [7,8], an exploration of Google search trends can provide key insights and surrogate metrics on the population's perception of urological cancers during the changing face of the COVID-19 pandemic [4]. Ultimately, the study by Khene and colleagues shows a worrisome decrease in public interest in urological cancers, which may lead to a vicious circle generating further detrimental effects on patients, health care systems, and society. This is important, as a decrease in interest might eventually result in lower awareness, with potential clinically significant changes in patient compliance with screening and/or early diagnosis pathways for urological cancers. For diseases such as prostate cancer, bladder cancer, and kidney cancer, patient empowerment is key to the pursuit of early diagnosis and value-based care [9]. If not adequately informed, patients might feel that the risks of COVID-19 outweigh those related to genitourinary cancers, with the risk of delayed diagnosis and reduced participation in cancer screening programs. Of note, the expected changes in clinical practice resulting from urolog-

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ical society recommendations on prioritization of care for urological cancers will probably continue to put significant strain on urological units worldwide regarding workloads, internal logistics, the inflow of surgical patients, and waiting lists [5]. Moreover, the real mid-term and long-term "costs" and impact of the COVID-19 pandemic on urologic oncology practice may not have been entirely revealed yet.

Considering the influence of COVID-19 on patient perspectives [6] and the delivery of urological care [2,4], a change in perspective is needed to promote new strategies for patient education and public awareness of urological cancers during long-lasting worldwide "emergency" scenarios. Renewed strategic plans will be needed not only to optimize the management of genitourinary cancers (through telemedicine, virtual care, telemonitoring, and personalized decision-making and prioritization schemes) [4] but also to enhance patient empowerment, engagement, and education.

The COVID-19 pandemic should therefore be considered as a unique opportunity to refine our mindset and to improve our ability to educate patients on urological cancers, taking advantage of technology, social media, and online resources. The new paradigm for virtual education for urology residents during the COVID-19 pandemic, based on easily accessible online structured e-learning programs [3,10], provides insights on how a crisis can be promptly leveraged by the urology community to transform "traditional" learning models.

A similar approach could be promoted (ideally by urological associations and societies) to pursue a new paradigm for virtual patient education in times when both mass media and health care organizations are still primarily focused on facing the challenges introduced by the pandemic. While a few high-quality patient education platforms are still in place (eg, https://patients.uroweb.org and https://www.urologyhealth.org), further work is needed to increase public awareness of urological cancers, improve patient engagement in times when established models of care might be challenged, and overcome the traditional limitations of virtual platforms in terms of the patient-physician relationship.

In conclusion, the study by Khene and colleagues confirms that raising awareness of urological cancers during the COVID-19 pandemic is still an unmet need. Given the cascade of potential detrimental effects caused by reduced patient interest in urological cancers, coupled with the revolutionized diagnostic and therapeutic pathways forced by the COVID-19 pandemic, the uro-oncology community and policymakers should strive to address this need by adapting patient education to the "new" scenario and empowering patients to create value for screening, early diagnosis, and personalized treatment of urological malignancies.

Conflicts of interest: The authors have nothing to disclose.

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