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Opinion

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Prostate cancer timeline - an update for family physicians

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Opinion

It is widely known that mortality from prostate cancer is quite significant worldwide. The incidence and mortality have been on the decline or have stabilized, particularly in developed countries, arguably reflecting greater access to early diagnosis and more effective treatments.[1] In the last two decades, many concepts regarding prostate cancer have been adjusted. If, on the one hand, even the urologists had to struggle to keep up with the changes, on the other, general practitioners are probably unaware of important updates about this malignancy. The knowledge accumulated in recent years about this tumor is essential to the family practice doctor, who needs to guide the patients through the correct sequence of diagnosis and treatment. Therefore, some important historical points need to be pointed out.

Firstly, the prostate specific antigen (PSA) is a tumor marker that has changed the natural history of prostate cancer. From the 1990s, its widespread use allowed a substantial increase in the number of diagnoses of this disease at earlier stages. Early identification also implied the possibility of curative surgical treatment for a growing number of patients.[2] The radical prostatectomy technique was markedly improved from the beginning of this century and became a procedure associated with a low rate of complications. This development further motivated the screening of asymptomatic men and triggered the technical evolution in techniques, such as laparoscopic prostatectomy and, later, robot-assisted laparoscopy, due to the large number of surgical procedures.

The overwhelming surge of radical prostatectomies has brought uncertainty about its medical soundness. Two large multicentric studies, carried out independently in Europe and the United States of America, have tried to clarify the existing doubts. The North American study (Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial – PLCO) suggested that opportunistic screening did not change the mortality rate, whereas the European study (European Randomized Study of Screening for Prostate Cancer – ERSPC) indicated that the systematic screening could be beneficial.[3,4]

In 2012, the USPTF (US Preventive Task Force) took a stand against screening of prostate cancer based on the PLCO. Such a recommendation received criticism, firstly because it represented an about face for the urological community at that time, but also because of some alleged flaws in the trial. The main concern was related to its methodology: one group would be screened systematically, and the other would go only into opportunistic screening. This imprecise separation put in check the conclusions of the study and the strength of the recommendation in the following years, but, nevertheless, it represented a milestone in the treatment of the prostate cancer.[5]

The impact of this controversy brought both positive and negative consequences. Some general practitioners have misinterpreted the concepts and started to ignore the disease, which led to adverse numbers in terms of mortality and cancer staging.[6] The USPTF later backed down from its position against prostate cancer screening and reconsidered its use had the patient been informed about possible risks and benefits.[7]

Additionally, the urological community began to consider more seriously the possibility of being diagnosing some indolent tumors and treating some patients unnecessarily. Although the huge developments in surgical technique had minimized adverse effects and improved the recovery period, there is still a meagre possibility of having severe urinary incontinence and a significant risk of erectile dysfunction.

The debate has led to new research assessing whether the mortality would be worse in asymptomatic patients who were not screened for prostate cancer. The net result was the differentiation between high-risk and low-risk cancer based on pathological and clinical findings. As a conclusion, the former requires treatment because of its malignant potential, whereas the latter could be kept under surveillance, as long as it remains indolent.

Active surveillance (AS) is currently the main strategy to avoid unnecessary treatment. The patient who is diagnosed with prostate cancer presenting non-aggressive characteristics is maintained in a systematic follow-up protocol without definitive treatment. It can be inferred that the cancer is indolent when PSA < 10 ng/mL, Gleason score is 6, there is a small volume of tumor and absence of anatomopathological findings of aggressiveness, such as a cribriform component, perineural and invasion beyond the limits of the prostate capsule. Patients should be advised about the AS option, including its risks and benefits and sign a consent form. During the follow-up period, PSA dosage, digital rectal exam, magnetic resonance imaging and new biopsies should be indicated in accordance with updated protocols.[8,9] Treatment (radical prostatectomy or radiotherapy) is indicated only if the exams indicate that the cancer is evolving.

It is important to differentiate AS from watchful waiting, which is indicated for older patients with a life expectancy of less than 10

years. In these cases, the treatment is only palliative and should be triggered by the presence of symptoms.[10]

Lastly, no surgical approach has been proven to be superior from the functional or the oncological points of view (open, laparoscopic, or robotic surgery), but minimally invasive techniques are associated with faster recovery and less postoperative pain.[11] Most radical prostatectomies today are performed by laparoscopic or robotic techniques all over the world.

In light of the foregoing considerations, the dialogue between urologists and general practitioners needs to be maintained continuously so that prostate cancer patients can be benefited from technological advances AND also be properly treated. This is a subject in constant evolution and the success of the treatment depends on a coordinated multidisciplinary approach.

It has been shown that good communication between physicians is associated with better patient outcomes, whereas insufficient interaction decreases the quality of care due to delayed diagnoses and treatments, increases the frequency of adverse effects and causes unnecessary hospitalizations.[12] In some countries, patients are allowed to self-refer to urologists without consulting a general practitioner first, while in others the referral is only possible when protocols indicate the rationale for the specialist opinion. There is an urgency to health systems to re-examine their prostate cancer protocols in order to include the most recent recommendations over screening, AS and watchful waiting, thus reassuring the family practice doctors about these new practices. On the side of the urologists, proper attention to counter-referral practice and favouring the spread of knowledge through seminars, articles and events are undoubtedly measures that will ultimately benefit patients.

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Conflicts of interest

The author declares there is no conflict of interest.

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