Diagnosis of Localized, Screen-Detected, Prostate Cancer—Crisis or Opportunity?

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Perhaps more so than with any other common cancer over the past one or two decades, we have witnessed an extraordinary change in the presenting characteristics of men with prostate cancer. Whereas disease was often disseminated at diagnosis 20 years ago, it is now often organ confined. Whereas disease was often evident, it is now frequently asymptomatic at diagnosis. There could be many explanations for this change over time, but prostate-specific antigen (PSA) testing is probably chief among them because many of these changes coincided so closely with the introduction and use of this test.

These vast changes in the presenting population raise the possibility that previous data that were collected during the pre-PSA era may not reflect contemporary reality and may thus limit the ability of health-care providers and their patients to make the most appropriate decisions regarding the optimal management of the disease. To address this challenge, Stattin et al. (1) report the results of a study that adds to the growing list of population-based studies (2) with data on long-term outcomes for patients diagnosed with localized disease in the contemporary PSA era. Compared with previous research, this population-based study was notable in that the authors were able to incorporate PSA and Gleason score data into their statistical models.

The authors found that among low-risk patients with localized prostate cancer (defined as clinical stage T1, Gleason score ≤6, and PSA <10 ng/mL) in the surveillance group, 10-year prostate cancer mortality was 2.4% (1). These results were similar to those of a recent US study (2) that was based on 1992–2002 data in men aged 65–69 years with T1 disease (ie, 2% prostate cancer mortality). Results from both of these studies were substantially better than the 10-year cancer mortalities of 15%–23% that were reported previously in studies (2) of patients diagnosed in the pre-PSA era, including the Scandinavian Prostate Cancer Group Study No. 4 randomized prostatectomy trial (ie, 12.5% in the prostatectomy arm and 17.9% in the control arm) (3). These high survival outcomes were also consistent with results (4) from the European Randomized Study of Screening for Prostate Cancer that showed that approximately 48 men had to undergo cancer treatment (eg, surgery or radiation therapy) to avert one death from prostate cancer.

Probably, the most remarkable finding from this study (1) and several previous studies (2,5), however, is the realization that survival in most (eg, Gleason ≤7 disease), but not all (eg, Gleason 8–10), patients with localized disease managed conservatively is now similar to that of age-matched control subjects. Thus, most of these men can be expected to live out their lives without being mortally affected by prostate cancer, and most of these men will likely face a new health obstacle, a competing cause of death.

In his recent NY Times bestseller, Outliers—The Story of Success (6), Malcolm Gladwell argues that succeeding, and overcoming obstacles, is surprisingly dependent on environmental influences. Gladwell closely examines the success of groups and individuals and shows that it is not the most intelligent, nor the strongest, nor the fastest who succeed but those who encounter an opportunity or occurrence (sometimes catastrophic) by chance and are moved enough to act upon it. A successful outcome is more about being in the right place at the right time with the right frame of mind than anything else.

For many men diagnosed with PSA-detected localized prostate cancer, the time after their initial disease assessment and management may be the right place and the right time with the right frame of mind to make a real impact. For most of these men, the prostate cancer itself will often be a low-risk disease, and it is likely that these men will face other, more life-threatening, health issues in the years ahead. Under these circumstances, the diagnosis of prostate cancer may be the impetus necessary for these men to...
change the course of their future health. Indeed, a bevy of previous research has demonstrated that cancer patients are particularly receptive to health-care advice after diagnosis, although older men, like those with prostate cancer, appear to be among the least likely to be receptive to change (7).

Complicating matters, however, are studies (8) that have also shown that, unfortunately, many of the results of health-care research are lost in translation and only inconsistently applied. For example, although colorectal cancer screening is effective in decreasing colorectal cancer mortality, only 53%–59% of eligible patients were screened in 2009 (9). Moreover, despite an epidemic of obesity, simple screening assessments of body mass index are infrequent and documented in only 24%–31% of patients presenting for outpatient visits (9). In the United States, implementation of universal colorectal cancer screening could avert 30000–44000 deaths from colorectal cancer a year and control of obesity would, no doubt, decrease the 112000 excess cardiovascular deaths attributed to this disorder annually (10). There are many other examples of important, and often neglected, health interventions such as screenings for aneurysms, alcohol misuse, depression, hypertension, HIV, lipid disorders, sexually transmitted diseases, and diabetes, along with interventions for smoking cessation, healthy nutrition, and aspirin use, which are underemployed (11). The diagnosis of prostate cancer may constitute the impetus that forms the basis for future health-care success for these men, just as unfortunate experiences would lay the foundation for great achievement in Gladwell’s studies.

As researchers and health-care providers, we all want to make a difference in the lives of our patients, and we spend countless hours preparing ourselves for that opportunity. In some small sense, a diagnosis of low-risk prostate cancer that may not require extensive intervention may be anticlimactic for those of us who have dedicated ourselves to waging war against this disease. However, the crisis faced by these patients may open a door of opportunity for preparing ourselves for that opportunity. In some small sense, a difference in the lives of our patients, and we spend countless hours

References

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