

Is there ageism in prostate cancer detection?

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There has been continuing controversy regarding the role of prostate-specific antigen (PSA) testing in the diagnosis of prostate cancer, particularly in the screening scenario. Recent data from the *New England Journal of Medicine* suggest that mortality related to prostate cancer can be reduced at 8.8 years after diagnosis by about 20% among a cohort of men between 55 and 74 years of age.¹ What are we to do with the men 75 and older?

As pointed out by Mistry and colleagues,² life expectancy among men continues to increase. Furthermore, men are more physically and sexually active as they age, compared with 20 and 30 years ago. The morbidity and mortality of cardiovascular diseases are also declining. How are we to incorporate these changing realities into the detection of prostate cancer among elderly men?

Mistry and colleagues reviewed the results of 1446 needle biopsies among men aged 75 and older. Not surprisingly, 52% of the biopsies were positive for prostate cancer and 78% of those would be defined as clinically significant by current methodology. The authors conclude that there may be a benefit in aggressively pursuing a prostate cancer diagnosis among men older than 75.

There are many limitations to the authors' study that must be clarified. First, there is no information, as acknowledged by the authors, about the indication for biopsy among these men older than 75 years. It is very possible that it was not PSA but significant findings on digital rectal examination that drove these biopsies. Clearly, as men age their risk of high-grade disease increases and, indeed, my research group has shown this in some of our previous analyses.³ Furthermore, we know that men with significant prostate nodules are at a higher risk for clinically significant disease.⁴ In this sense, the clinical findings in this article are not particularly novel.

Second, another significant limitation continues to be our definition of "significant prostate cancer." The original definition of significant prostate cancer was derived from radical cystoprostatectomy specimens and the features of prostate cancers therein. A rank analysis was then done taking the worse percentile of patients and using these as features to predict death from prostate cancer. There are

obvious flaws in this methodology that we have been stuck with for many years.

From a patient's point of view, however, clinically significant prostate cancer represents prostate cancer that if untreated would cause undue morbidity and/or mortality for the patient. Since the prostate cannot be removed, examined and replaced into the body, it remains extremely difficult to define what a clinically significant cancer is. Nevertheless, the vast majority of nonmetastatic prostate cancer does not impact on longevity within a 0–7 year window. In addition, the vast majority of these cases would unlikely affect mortality for 12–20 years.

Given these truisms and some of the methodological limitations of the article by Mistry and colleagues, I do not believe that current practice should change. Should we continue to order biopsies for men older than 75 years? Of course the answer is "Yes." If a man has an abnormal finding on digital rectal examination or if his PSA level is significantly high, then a prostate biopsy is warranted and, indeed, treatment for that prostate cancer may be warranted. Keep in mind, however, that randomized data suggest no benefit to radical prostatectomy in terms of survival for men older than 65 years.⁵ These data of course may not apply to men with more advanced disease, and modalities such as radiotherapy and hormonal therapy remain viable options.

Should we provide annual PSA testing for men older than 75? In my opinion, the answer is "No." The prevalence of prostate cancer that is indolent, or even what we would consider on histology clinically "significant," and would have no impact on the patient, is far too high to warrant this. Furthermore, the burden of overtreatment, particularly in the forms of radical therapy or hormonal therapy, have a particular toll on elderly patients. In my view, the risk–benefit analysis simply does not justify this.

Does this mean that ageism exists in the detection of prostate cancer among elderly men? No. It is simply a product of the fact that as men get older, the number of years they have to live is on average less than it is for younger men. This is coupled with the increase in the morbidity of treatment. I am a strong proponent of PSA screening and testing,

but I believe we would do greater harm than benefit if we were to employ this among men older than 75 years.

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References

1. Schröder FH, Hugosson J, Roobol MJ, et al.; ERSPC Investigators. Screening and prostate-cancer mortality in a randomized European study. *N Engl J Med* 2009;360:1320-8.
2. Mistry S, Mayer W, Khavari R, et al. Who's too old to screen? Prostate cancer in elderly men. *Can Urol Assoc J* 2009;3:205-10.
3. Kulkarni GS, Al-Azab R, Lockwood G, et al. Evidence for a biopsy derived grade artifact among larger prostate glands. *J Urol* 2006;175:505-9.
4. Toi A, Neill MG, Lockwood GA, et al. The continuing importance of transrectal ultrasound identification of prostatic lesions. *J Urol* 2007;177:516-20.
5. Bill-Axelson A, Holmberg L, Ruutu M, et al.; Scandinavian Prostate Cancer Group Study No. 4. Radical prostatectomy versus watchful waiting in early prostate cancer. *N Engl J Med* 2005;352:1977-84.

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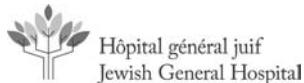
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