

Can Non-Urological Doctors Play a Role in Early Prostate Cancer Detection?

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Purpose: To evaluate the awareness of non-urological doctors for their role in evaluating prostate cancer (Pca) in scientific manner which may be a possible probability for late diagnosis of Pca.

Materials and Methods: A total of 936 non-urological specialists working in 1 university and 4 education and research hospital who were able to evaluate male patients over 50 years of age were included to the survey. A face to face questionnaire had been administered to all participants.

Results: A total of 92 (9.8%) participants were evaluating prostate-specific antigen (PSA) level to all their elderly male patients while 404 (43.2%) participants had never made this evaluation. Among the participants who were evaluating PSA, none was performing an informed decision making consult and even they did not have any idea about the meaning of this strategy. About the criteria for urological consultation, 56 (6%) reported that they consult all their elderly male patients, whereas 880 (94%) answered that they perform consultation if their patients has sought help for any urological symptom.

Conclusion: Urologists must remind the non-urological specialists that their approaches to Pca evaluation may change mortality rates of this disease and give them proper information about the scientific evaluation of Pca. This may help us to decrease the mortality rates of Pca.

Keywords: prostate-specific antigen; early detection of cancer; prostatic neoplasms; physicians; family practice.

INTRODUCTION

Prostate cancer (Pca) is the most important cancer of male population. It was reported to be the 4th most common cancer in the world and most frequent solid tumor in Europe.⁽¹⁾ While the incidence of organ confined Pca has increased, the incidence of invasive or metastatic Pca decreased in the last 2 decades. Despite this decrease incidence of invasiveness, cancer specific mortality rates of Pca did not decline with the same proportion.⁽²⁾ Pca has still been the leading cause of new cancer cases and the second leading cause of cancer deaths among males in United States.⁽³⁾ The invention of prostate specific antigen (PSA) was a cornerstone for diagnosis of Pca.⁽⁴⁾ As it gave the opportunity for early detection of Pca, it had been widely accepted all around the world. Several screening programs had been defined to provide early detection of Pca. But this programs also caused arguments about over-diagnosis and over-treatments for patients with incidental Pca. Two major trials evaluating the effect of screening Pca reported different results. While European Randomized Study of Screening for Prostate Cancer (ERSPC) study reported a beneficial effect of screening on mortality rates, Prostate, Lung, Colorectal and Ovarian (PLCO) study failed to document this relation.^(5,6) Whether, screening has scientific manner or not, PSA has still been the most reliable and favorable tumor marker for diagnosis of Pca and it is recommended to perform PSA evaluation to male patients over 50 years of age after a decision making consult.⁽⁷⁾ Any delay in performing PSA to elderly patients may cause the disease progress to incurable stages. In most developed countries, general practitioners (GPs) and family doctors are the main physicians that have first contact with the majority of patients. Their view for Pca evaluation is thought to be very important so several studies investigated this issue.^(8,9) But, there are also some countries that other specialists may be the primary doctor of patients. So, those non-urological specialists may be the first doctors that have the opportunity to contact with patients and evaluate Pca. According to our knowledge, there is no study defining the view of non-urological specialist in evaluation of Pca. In this study, we aimed to evaluate the awareness of non-urological doctors for the evaluation of Pca in their daily work life.

MATERIALS AND METHODS

A total of 936 non-urological specialists working in 1 uni-

versity and 4 education and research hospital, who were able to evaluate male patients over 50 years of age were included to the survey. Specialties that do not get contact with elderly male patients, like pediatrician, pediatric surgeon, radiologist and obstetrics and gynecologist were excluded from the survey. All other specialties were included to the study. The numbers of participants according to their specialties were shown in Table. All of the participants were actively working at outpatient clinics of their specialties. After the permission of local ethic committee, a face to face questionnaire including a written consent had been administered to all participants. The questionnaire was composed of 4 parts (Appendix); 1) questions about the demographic characteristics of participants, 2) questions about the participants' approach for the diagnosis of Pca in their daily work life such as PSA evaluation and rectal examination, 3) questions about the general knowledge of participants about the normal values of total PSA, and 4) questions about the participants' preferences for urological consultations and family history. As this was a questionnaire study, results were given in percentages without a need of any statistical analysis.

RESULTS

All of the doctors were agreed to participate in the study. Among the participants, 536 (57.3%) were male and 400 (42.7%) were female. The participants were evaluating 92 ± 32 male patients over 50 years of age in one month. When we asked the frequency of PSA evaluation, 404 (43.2%) participants told that they never evaluate this marker for their elderly patients. Among the rest of the participants, only 92 (9.8%) informed that they routinely evaluate PSA for their patients over 50 years of age. A total of 312 (33.3%) participants declared that they were analyzing this marker at less than half of their patients whereas 128 (13.7%) were analyzing at more than half of their elderly patients (Figure, A). There was a female predominance (73.9%) at the group who were evaluating PSA at their whole elderly patients and male predominance (77.2%) at the group who were never evaluating PSA. Among the participants who were evaluating PSA, none was performing an informed decision making consult for the evaluation of Pca and even they did not have any idea about the meaning of this strategy.

To the question related to abnormal value of total PSA, 36 (1.7%) participants answered that they consider it as abnormal if PSA > 1 ng/dL, 168 (17.9%) if PSA > 2.5 ng/dL, 396

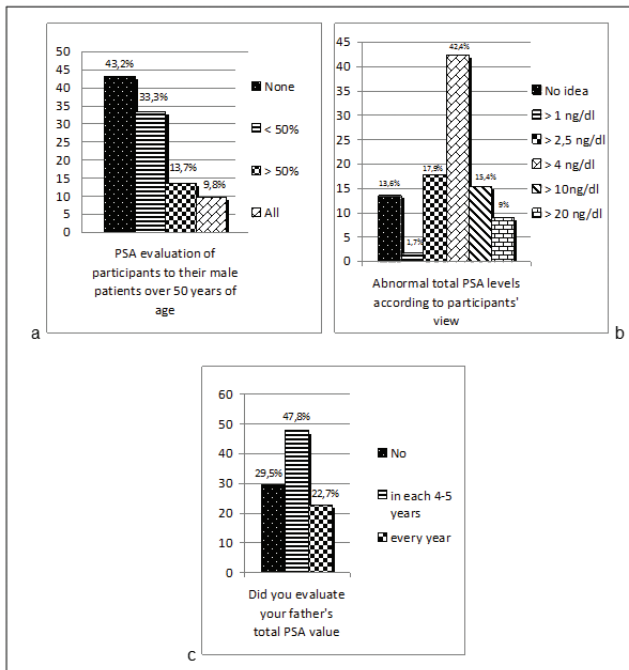


Figure. The ratios of general answers to the questionnaire.

(42.4%) if PSA > 4 ng/dL, 144 (15.4%) if PSA > 10 ng/dL and 84 (9%) if PSA > 20 ng/dL. A total of 128 (13.6%) participants reported that they have no idea about the normal values of total PSA (Figure, B). Concerning the physical examination, 816 (87.2%) participants reported that they do not do digital rectal examination (DRE) on their routine physical examination whereas 120 (12.8%) told that they do it routinely. Among the participants who perform DRE, 64 were general surgeon and 56 were internist. When we asked the reason of non-performing DRE, 680 (83.3%) replied that it was useless for their specialty.

When we asked the participants about their criteria for consulting their elderly male patients with urologist, 56 (6.0%) reported that they consult all their elderly male patients, whereas 880 (94.0%) answered that they seek consultation if their patients has talked about any urological symptom. In order to estimate the effect of the lower urinary tract symptoms on PSA evaluation, we asked “does the presence of lower urinary tract symptoms change your decision about the evaluation of total PSA”? Among the participants who never evaluate PSA, 396 (98%) told that it does not change their decision.

As we thought that the evaluation of Pca may not be the responsibility of non-urological doctors, we tried to demonstrate the approach of participants to Pca in their daily life

and asked questions about their fathers. A total of 52 (5.5%) participants' fathers were dead at the time of study and 3 of them had a history of Pca. One of the participant's fathers was dead because of end-organ failure due to metastatic Pca. When we checked the approach of these participants, who had a family history of Pca, we found that they all were consulting their elderly male patients to urologists. Among the rest of the participants, 828 (93.6%) had a father over 50 years of age. When we asked them if they performed any PSA evaluation to their fathers, 244 (29.5%) replied that they had never performed PSA evaluation whereas 396 (47.8%) had this evaluation in every 4 or 5 years and 188 (22.7%) had this evaluation annually (Figure, C).

DISCUSSION

Pca has still been an important cause of cancer related deaths among the male patients. Although the incidence of organ confined Pca had increased in the last 2 decades, disease specific mortality rates did not decrease with the similar proportion. There are still plenty of patients who had been diagnosed at invasive or metastatic stage and lose their chance for definitive treatment.⁽²⁾ So, early diagnosis of Pca is very important to decrease the cancer related mortality rates. Although there have been debates about the sensitivity and specificity of PSA for Pca screening, it has still been the most reliable and useful tumor marker for diagnosis of Pca.^(5,6) When it is combined with digital rectal examination, its sensitivity and specificity for diagnosing Pca increases.⁽¹⁰⁾

After the publication of 2 major randomized trials (ERSPC and PLCO trials), screening protocols for Pca became a controversial issue.^(5,6) General idea formed about this subject is to perform PSA evaluation with the decision of patients after an informed decision making consult. On the other hand, there is little evidence about how to organize services to achieve the best informed decision. In developed countries with a well-accomplished health policy, general practitioners and family doctors are the primary doctors that get contact with a large proportion of the population and could play an important role in informed decision making consult, but there are also some countries that non-urological specialists other than GPs and family doctors could be the main doctor that get first contact with patients. So, they could assume a role in preventive effort of Pca. For this reason, non-urological doctors must be aware of one of the most important cancer type of elderly male patients and understand their possible role in

Table. The number of participants according to specialties.

Specialty	Number	Specialty	Number
Emergency Medicine	12	Family Medicine	44
Neurosurgery	24	Internal Medicine	240
Dermatology	36	Physical Rehabilitation	28
General Surgery	92	Ophthalmology	92
Cardiology	64	Otolaryngology	96
Neurology	76	Plastic Surgery	32
Psychiatry	32	Orthopedics	28
Cardiovascular Surgery	20	Thoracic Surgery	20
Total number		936	

the campaign against this cancer.

There are some studies evaluating the view of GPs and family doctors to Pca evaluation and screening. Melia and colleagues reported that annual PSA testing ratio among GPs in England was 6% in symptomatic and 2% in asymptomatic elderly male patients.⁽¹¹⁾ On the other hand, Hudson and colleagues reported much higher ratios (77%) of evaluating PSA among American GPs.⁽³⁾ These two studies from different countries with different results reported the similar conclusion that informed decision making has yet to be incorporated as a routine part of primary care practice. We also agree with this conclusion and we think that, not only GPs and family doctors take role in informed decision making consult about Pca, non-urological specialist may also have role in this issue. For this reason, evaluating the view of non-urological specialist to Pca may be important for strategy planning against this mortal disease. According to our knowledge this is the first study in literature evaluating the view of non-urological specialist to evaluation of Pca.

In our study, only 9.8% of non-urological specialists reported that they do PSA evaluation to all of their elderly male patients, whereas 43% of participants reported that they never perform this evaluation. Beside this, 94% of participants declared that they don't seek any urological consultation for their elderly male patients unless patients have talked about their urological symptoms. As none of our participants was talking about the risks of Pca to their elderly patients, they were not taking any role in informed decision making consult for Pca evaluation. Even if we think that these patients do not have any urological symptom and did not visit an urologist, these doctors will be the only opportunity for patients for early detection of Pca. Their approach to these patients

may cause a delay in diagnosis of Pca and may let the disease progress to an incurable stage.

Digital rectal examination is one part of the main urological examination. In about 18% of patients with Pca can be detected by an abnormal DRE, irrespective of PSA level.⁽¹²⁾ For this reason, DRE is very important for diagnosis of Pca. Urologists are not the only specialists that perform DRE in their daily practice. General surgeons and internal medicine doctor also perform DRE normally in their daily practice. According to our study, nearly 80% of internal medicine doctors and 35% of general surgeons were not performing DRE. Beside this, 87% of specialists in our study population were not performing DRE. Indeed, DRE is not a routine examination for some specialties, but to be aware of the importance of this examination may help to guide the patient for basic Pca screening. Urologists may provide this by close contact with their colleagues informing them about the importance of DRE.

Nearly all participants told that, evaluation of Pca was not the responsibility of non-urological doctors. This may be an explanation for them not to evaluate PSA for their elderly patients. On the other hand, nearly 70% of our participants reported that they performed PSA evaluation for their fathers. This data shows that our participants were mostly aware of the importance of Pca, but they do not pay attention to this subject in their daily work life. Urologists must be aware of this fact and encourage the non-urological doctors for decision making consult for Pca diagnosis or consulting their elderly patients to urologists for evaluation of Pca.

In order to accomplish this purpose we must explain the non-urological doctors that, they may have opportunity to see elderly male patients that had never been seen by an urologist.

So a non-urological specialist may be the only doctor that is able to reach and evaluate those patients and these visits may be very important to eliminate the doctor related delay on the diagnosis of Pca. For this purpose, non-urological doctors must be aware of one of the most common cancer type of elderly male patients and understand their possible role for early detection of Pca. This role can be achieved by a simple PSA determination after a brief informed decision making consult at patients who did not have any urological evaluation.

There were some limitations in present study. First of all, this was a questionnaire based study performed to a limited number of non-urological doctors and may not be enough to generalize to all non-urological doctors. Beside this, we were not able to reach past medical records to confirm the rates of PSA evaluation of participants. We also did not have any idea about the number of patients who were evaluated by non-urological doctors but had not evaluated by urologists. So we cannot identify the possible Pca risk of elderly patients who were seen by non-urological patients. Our study was designed on a theory that non-urological doctors do not evaluate and inform their elderly patients about Pca. This study may show the relation but may not be enough to prove this theory and more comprehensive studies are needed. Another issue about this subject is; we evaluated the non-urological doctors who work in teaching or university hospitals. These findings may not reflect the real practice in peripheral health units, but there is another fact that Pca mortality rates did not decrease although the diagnosis rates increased by the last 2 decades. This shows that there is still a problem in early detection of Pca.

CONCLUSION

As a conclusion, campaigns against important diseases need a team work including doctors, health personals and media. We must remember that non-urological doctors are the members of the team against Pca. We must remind them that their approaches to Pca evaluation may change mortality rates of this disease and give them proper information about the scientific evaluation of Pca. This may help us to decrease the mortality rates of Pca.

CONFLICT OF INTEREST

None declared.

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Appendix. Questionnaire for evaluation of the view of non-urological doctors to prostate cancer.

Gender: Female Male

Specialty:

1. How many male patients over 50 years of age do you evaluate in a month period at your outpatient clinic?
2. How frequent do you evaluate total PSA level of your patients over 50 years of age?
 - a. None (I do not evaluate total PSA)
 - b. < 50% patients
 - c. 50% patients
 - d. All patients
3. Do you have any idea about informed decision making for PSA screening?
 - a. Yes (please specify what does it mean for you)?
 - b. No, I did not hear about it.
4. If you are evaluating total PSA, do you give any information about prostate cancer and possible risks of screening total PSA?
 - a. Yes, I inform all my patients.
 - b. Yes, I inform some of my patients.
 - c. No, I do not give any information.
5. (For the participant who replied “none” to the first question). Does the presence of lower urinary tract symptoms change your decision for evaluating total PSA level?
 - a. Yes
 - b. No
6. Which total PSA level do you consider to be abnormal and consult to an urologist?
 - a. PSA > 1 ng/dL
 - b. PSA > 2.5 ng/dL
 - c. PSA > 4 ng/dL
 - d. PSA > 10 ng/dL
 - e. PSA > 20 ng/dL
 - f. I do not have any idea.
7. Do you perform digital rectal examination to your male patients over 50 years of age in your daily practice?
 - a. Yes I perform this examination routinely.
 - b. Sometimes (please specify).
 - c. No, I never perform this examination.
8. If you do not perform digital rectal examination, would you please specify the reason?
9. Do you consider seeking a urological consultation for your male patients over 50 years of age?
 - a. Yes, I consult all male patients over 50 years of age.

b. I consult male patients over 50 years of age in some considerations (please specify).

c. No, I never consult male patients over 50 years of age.

10. What is the age of your father? (If your father is dead please note the reason).

11. Did you perform total PSA evaluation to your father?

a. No, I did not make total PSA evaluation to my father.

b. Yes, I do total PSA evaluation every year.

c. Yes, I do total PSA evaluation in every _____ years.

Thank you for your kind participation.