Assessment of contributing risk factors for patients with prostate cancer in Capital of Baghdad

*Dr.Khalidah M. Khudur

الخلاصة

الأهداف: تهدف الدراسة إلى تقييم العوامل المساهمة بسرطان البروستات في محافظة بغداد وتحديد العلاقة بين هذه العوامل والصفات الديموغرافية للمرضى المصابين بسرطان البروستات

المنهجية: دراسة وصفية تقويمية للفترة من كانون الثاني 2011 إلى آذار 2012 لتقييم العوامل المساهمة بسرطان البروستات في محافظة بغداد وقد أجريت الدراسة في مستشفى الجراحات التخصصية التعليمي ومستشفى الإشعاع والطب النووي في بغداد وشملت عينة البحث (40) مريضا مصاب بسرطان البروستات. حيث جمعت البيانات بعد أن تم بناء استمارة استبانه من قبل الباحثة ذات العلاقة بأغراض الدراسة ومكونة من (5) أجزاء رئيسية . الجزء الأول شمل صفحة البيانات الديموغرافية ويحتوي (5) فقرات ، وصفحة المكونات الأساسية للدراسة ويقع (4) أجزاء رئيسية ويندرج تحتها (27) فقرة فرعيه وتم تحديد مصداقية محتوى الاستمارة من خلال (9) خبراء من ذوي الاختصاص وثباتها من خلال حساب معامل الارتباط (بيرسن) والذي كانت قيمته مقبولة إحصائيا (r:0.88) وجمعت البيانات بطريقة المقابلة المباشرة، بعد ذلك تم تحليل البيانات من خلال تطبيق التحليل الوصفي (التكرار، النسبة المئوية) فضلا عن التحليل ألاستنتاجي للبيانات (الوسط الحسابي الموزون ومعامل الارتباط بيرسن) باستخدام الحقيبة الإحصائية للعلوم الاجتماعية الإصدار السادس عشر

النتائج: وقد أظهرت الدراسة إن غالبيه عمر المصابين هو أكثر من 60 سنه وهم يجيدون القراءة والكتابة واغلبهم متزوجون والدخل الشهري بالكاد يكفي .

التوصيات: أوصت الدراسة بضرورة الفحص الدوري لمرضى سرطان البروستات وإنشاء مراكز تخصصيه لسرطان البروستات في العراق

Abstract

Objectives: This study aims to assess the factors contributing to prostate cancer in the province of Baghdad, and determine the relationship between these factors and demographic characteristics of patients with prostate cancer
Methodology: A descriptive study was adopted for the period from October 2011 to March 2011 to assess the factors contributing to prostate cancer in the province of Baghdad The study was conducted in a hospital surgery specialist Teaching Hospital, Radiation and Nuclear Medicine in Baghdad and the research sample included 40 patients with prostate cancer
Where data was collected after it has been building form questionnaire by the researcher related to the purposes of the study and is composed of (5) parts , the first part included user demographics and contains (5) items and basic components of the study is located (4) main parts and falls below it (27) sub-paragraph has been determine the credibility of the content of the form through (9) of experts with competence and stability by calculating the correlation coefficient (Pearson), which was the value of acceptable statistically (r: 0.88) and data was collected in a direct interview, then the data were analyzed through the application of descriptive analysis (frequency , percentage) as well as deductive analysis of the data (arithmetic mean and weighted Pearson correlation coefficient) using statistical bag of Social Sciences (SPSS) V. 16.
Results: The study showed that the majority of people with age is more than 60 years and they know how to read and write, most of whom are married and monthly income is barely enough.
Recommendations: The study recommended the need for periodic examination of patients with prostate cancer and the establishment of specialty centers for cancer of the prostate in Iraq
Key words: Assessment, risk factors, prostate cancer.

*** Instructor, University of Baghdad/ College of Nursing**

Introduction

National cancer institute 2011 shows that Prostate cancer is a disease in which malignant (cancer) cells form in the tissues of the prostate. Prostate cancer is a form of cancer that develops in the prostate, a gland in the male reproductive system. Most prostate cancers are slow growing; however, there are cases of aggressive prostate cancer[(1)]. Rates of detection of

prostate cancers vary widely across the world, with South and East Asia detecting less frequently than in Europe, and especially the United States. Prostate cancer is the most common non-skin malignancy in men[2] and is responsible for more deaths than any other cancer, except for lung cancer. However, microscopic evidence of (prostate?) cancer is found at autopsy in many if not most men[(2)]. The American Cancer Society (ACS) estimated that about 218,890 new cases of prostate cancer were diagnosed in the United States during 2007. About 1 man in 6 will be diagnosed with prostate cancer during his lifetime, but only 1 man in 34 will die of it. A little over 1.8 million men in the United States are survivors of prostate cancer[(3)].

Prostate cancer is the most type of cancer found in American men. Other than skin cancer, Prostate cancer is the second leading cause of cancer death in men(lung cancer is the first) one mane in 6 will get prostate cancer during his life time and one man in 35 will die of this disease[(4)]

prostate cancer in the United States are for 2009: 192,280 new case of prostate cancer and 27,360 death from prostate cancer[(5)].

African- Americans have a higher incidence of cancer than Caucasian, death rates to cancer are higher for African-American than Caucasians, native Americans have lower incidences of cancer than any other group in the United states but have the poorest survival rare when they do get cancer[(6)].

Prostate cancer occurs twice as frequently among African-American men as among Caucasian men. African- American men tend to be diagnosed with prostate cancer at an earlier age, have more advanced disease at the time diagnosis and have higher mortality rate than do Caucasian men. Hispanic and Asian-American men have a lower incidence of prostate cancer and lower mortality rate as compared with Caucasian men[(4)].

In Iraq Iraqi cancer Board 2008 registered that Prostate cancer is one of the ten top cancers that affect men in Iraq, where new cases registered in 2008 numbered 246 by 3.73 and a mean infected rate that is 1.56 per 100,000 population was registered either of the capital Baghdad where 66 new cases in the same year .That prostate cancer is ranked 61 of all cancers registered in Iraq, amounting to 88 depending on the type of areas affect them has been proven by histological analysis of prostate cancer that the Adenocarcinoma,NOS type is the most prominent of the prostate cancers recorded in Iraq, where the rate of 34.55% then comes after them Epithelial tumor where rat 2.03% [(7)].

Methodology:

A descriptive study used to assess the factors that contributes to prostate cancer . The study was carried out during the period from October 2010-to May 2011. The present study carried out in Al-Shahid Ghazi Hariri Teaching Hospital and Radiation and Nuclear Medicine Hospital in Baghdad.

A purposive "non probability" sample of (40) patients with prostate cancer who admitted to the hospital.

A questionnaire was designed& constructed by the researcher to measure the variables underlying the study. Such a construction was employed through review of literature and related studies. Questionnaire consisting of (5) parts , whereas the first part was demographic

data of subjects which contains (5) items (Age, marital status, educational level, occupation and monthly income).The second part was environmental and daily habit which consisted of (6) items, the third part was past history which consisted of (8) items ,the fourth part was psychosocial status which consisted of (8) items and the fifth part was environmental and personal hygiene which consisted of (5) items these items rated and scored as (3 for always), (2 for sometime) and (1 for never).

The data were collected through the utilization of developed questionnaire and interview technique for patients with prostate cancer in the urinary care units. The Interview with each patient took approximately (20) minutes. The data collection carried out during April 2011 to January 2012. The researcher used the appropriate statistical means in the data analysis which include Descriptive data analysis (frequency and percentage) and Inferential data analysis (Mean of scores and Pearson correlation coefficient). Whereas mean of score less than (1.5) was considered low (L), from (1.5-2.5) was considered moderate (M) and greater than (2.5) was considered high (H) . The data were analyzed through the use of statistical package of social Sciences (SPSS) version 16.0

Results

Table(1) Distribution of demographic characteristic of prostate cancer.

Age	Frequency	percent	Cumulative percent
45-50 years	4	10.0	10.0
51-55	6	15.0	25.0
56-60	7	17.5	42.5
61-65	7	17.5	60.0
66&more	16	40.0	100.0
Total	40	100.0	
Marital status			
Married	38	95.0	95.0
Single	2	5.0	100.0
Total	40	100.0	
Educational level			
No read and write	8	20.0	20.0
Read and write	15	37.5	57.5
Primary graduate	11	27.5	85.0
Intermediate graduate	1	2.5	87.5
Secondary graduate	2	5.0	92.5
Institute, college and above	3	7.5	100.0
Total	40	100.0	
Occupation			
Governmental officer	3	7.5	7.5
Free job	16	40.0	47.5
Retires	17	42.5	90.0
Unemployed	4	10.0	100.0
Family income			
Sufficient	10	25.0	25.0
Barely sufficient	25	62.5	87.5
Insufficient	5	12.5	100.0
Total	40	100.0	

This table indicated that majority of age were in group (66) and above were accounted (40%) . The most of the study were married 38 (95%) and most of them read and write 15 (37%) and most of them were retires 17 (42%) and the majority of them insufficient 25 (62%).

Table (2) Distribution of environment information and habits

Location of setting	Frequent	Percent	Cumulative Percent
City center	6	15.0	15.0
Suburbs	34	85.0	100.0
Total	40	100.0	
Smoking			
Yes	32	80.0	80.0
No	8	20.0	100.0
Total	40	100.0	
Number of Package			
Less than 1 package	8	20.0	20.0
One package	4	10.0	30.0
Two package	12	30.0	60.0
Three package and above	16	40.0	100.0
Total	40	100.0	
Duration			
1-5 years	8	20.0	20.0
5-10	2	5.0	25.0
10-15	9	22.5	47.5
15-20	8	20.0	67.5
20&above	13	32.5	100.0
Total	40	100.0	
Tea drinking			
Yes	36	90.0	90.0
No	4	10.0	10.0
Total	40	100.0	
Water drinking			
Mineral Water	4	12.5	12.5
Tap Water	36	87.5	100.0
Total	40	100.0	

This table shows that the majority of them live in the suburbs 34 (85%) and most of them smoking 32 (80%) and most of them smoking 3 packages daily 16 (40%) and most of them smoking above 20 years 13 (32%) .

Table (3) Mean of scores for items of past history

No.	Item	Yes F	No F	MS	Severity
1	Exposed to attacks of UTI	32	8	1.8	H
2	Had urinary stone	8	32	1.2	L
3	Had an accident led to tear or dysfunction of prostate	1	39	1.03	L
4	Had surgical operation related to urinary system	6	34	1.15	L

5	Had analgesic taken heavily	23	17	1.58	M
6	Dose any family members have urinary tract disorder	10	30	1.25	M
7	Dose any family members have cancer	10	30	1.25	M
8	Had exposed hernia	2	38	1.05	L
	Total	92	228	1.29	M

This table shows that high mean of score in items one and moderate mean of score on items (5-6-7) and low mean of score on the remaining items.

Table (4) Mean of scores for items of psychosocial status

No.	Item	Always F	Some times F	Never F	M.S	Severity
1	Exposed to job stress.	1	18	21	1.97	M
2	Always think about your family future	9	26	5	2.98	H
3	Suffering from family responsibility	8	27	5	2.68	H
4	Fear from future	2	16	22	1.4	L
5	Feel upset without an obvious reason	1	24	15	1.65	M
6	Feel confused	2	12	26	1.4	L
7	Suffer from loss of financial support	3	30	7	1.9	M
8	Nature of your job make your nervous	2	16	22	1.5	M
	Total	28	169	122	1.95	M

This table indicated that high mean of scores on items (2-3) and low mean of score on item (6) and moderate of score on the remaining items.

Table (5) Mean of scores for items of environmental and personal hygiene

No.	items	Always F	Sometimes F	Never F	M.S	Severity
1	Use of air dead-rant	2	23	15	1.67	M
2	Use insecticidal a lot of in your home	1	12	27	1.35	M
3	Use antiseptic in cleaning your house	3	32	5	1.9	L
4	Rarely strict in washing your body twice weekly at winter time	6	32	2	2.1	M
5	Rarely do sport in fresh air	1	10	29	1.3	L
	Total	13	109	78	1.66	

This table shows that moderate of score on items (1-2) and low of score on the remaining items.

Table (6) correlation coefficient between the demographic characteristics (age, marital status, educational level ,occupation, income ,location of setting, smoking, number, duration of smoking, tea,) with psychosocial and environmental and personal hygiene.

correlation	psychosocial	Personal hygiene
Age	0.142	-0.118
Marital status	0.073	0.041
Educational	-0.183	0.564
Occupation	0.123	-0.255
Income	0.145	-0495
location of setting	0.177	-0.733
Smoking	0.356	0.284
Number	-0.237	-0.447
Duration of smoking	-0.128	-0.429
Tea	0.105	-0.137

This table shows that there is strong positive relationship between education and hygiene and there is strong negative relationship hygiene with home and there is moderate relationship between the remaining variables.

Discussion

The result of study indicated that majority of age were in group (66 and above) are accounted (40%). (Table 1)

-These findings were in agreement with obtained by Dr.Patrick who found that in united states more than (65%) of all prostate cancer are diagnosed in age men over the age of 65 and the average age diagnosis of prostate cancer is 69 years. After that age , the chance of developing prostate cancer becomes more common than any other cancer in men[(8)].

Brunner& Suddarths indicated that the incidence of Prostate cancer increases rapidly after the age of 50 years. More than 70% of cases occur in men older than 65 years of age [(9)].

The finding of the study show that the most of the study sample were married 38 (95%).

This result agrees with Chanwa and Saigh indicated that the married patient with cancer showed a higher mean than the single mean .The possible explanation for the present finding due to increase infection of genitourinary system among patients and changing the resisting to the disease for elderly men[(10)].

The most of study sample were read and write 15 (37%). This result supported by WHO, which reported that lack education can empower them to make decisions to protect and improve their own health [(11)].

The present study indicated that the majority of the study sample were retires 17 (42%). This finding supported by Chanawa,K; Al. saigh found out that the majority of patients with prostate cancer was retired[(10)].

The result study finding the majority of the study sample were insufficient 25 (62%).

WHO, supported this result they said that low income and disadvantaged groups are generally exposed to avoidable cancer risk factor[(11)].

The result study shows that the majority of them were live in the suburbs 34 (85%) and most of them were smoker 32 (80%) and most of them smoking 3 packages daily 16 (40%) and most of them were smoke above 20 years 13 (32%) as shown in table (2).

This result agrees Catherine Pearson which indicated that the a mounting body of evidence that links fatal prostate cancer and cigarette use. The smokers had a 61 percent increased risk that their prostate cancer would return. smoking at the time of diagnosis was associated with substantially increased overall mortality and prostate cancer mortality and recurrence," the authors wrote [(12)].Other study supported this by Edward G., Yan Lia that founding the smoking within 10 years with associated with a higher risk of fatal prostate cancer[(13)].

In addition table (3) shows that high mean of score in items one (Exposed to attacks of UTI) and moderate mean of score on items 5 (Had analgesic taken heavily?), 6(had any family member have urinary tract disorder), 7 (Does any family member have cancer).

This result supported by Hemink, K,&Li, X, which reported that the frequently urinary tract infection increases the risk of prostate cancer [(14)].

Other author Dr.patrik which indicated that the men who have first degree family members with prostate cancer appear to have double the risk of getting the disease compared to men without prostate cancer in the family.

Prostate cancer seems to run in some families, men with closely family members "father, brother" who have had prostate cancer are more likely to get it them selves, especially if their relatives were young when they got the disease [(8)].

The result study indicated that high mean of scores on items 2 (Exposed to job stress), 3 (always think about your family future) as shown in table (4) .

These finding were in agreement with obtained by Jeanne , Marja T. found that little evidence was found for a relation between job strain and cancer related lifestyle in multivariate analyses [(15)].

In table (5) shows that result study moderate of score on item one (use of air deadrat) and item two (use insecticidal a lot of in your home).

kutors S,Beana finding that increased prostate cancer risk with specific pesticide use among those with a family history of prostate cancer and a significant interaction among variants on chromosome 8q24, pesticide use, and risk of prostate cancer[(16)]. Other researcher Michae wrote use of chlorinated pesticides among applicators over 50 years of age and methyl bromide use were significantly associated with prostate cancer risk. Several other pesticides showed a significantly increased risk of prostate cancer among study subjects with a family history of prostate cancer [(17)].

Finally the results of study in table (6) shows that there is strong positive relationship between education and hygiene (r=0.564 , P=0.01). This means that the increase of education level lead to increase personal hygiene.

And study shows there is strong negative relationship between hygiene with location of setting (r=o.733, P=0.01). This means that the increase of personal hygiene lead to decreases the opportunity of disease in location of setting.

Reference

1. "General Information about prostate cancer." National Cancer Institute, http://www.cancer.gov/cancertopics/pdq/
2. "What are the key statistics About prostate cancer?," National Cancer Institute, http://www.cancer.gov/docroot/CRI/content/
3. "The prostate Cancer Outcomes Study: Fact Sheet" National Cancer Institute, http://www.cancer.gov/cancertopics/pdq/
4. American prostate Association ,Inc,: what about prostate cancer; 2010 4
5. American cancer society: information and resources for cancer: Breast,Colon, Prostate, Lung and other form. Web. 15 Jun 2010
6. Sharon, M.; Margaret, M.& Shannon, R.; Medical Surgical Nursing 5th edition; Mosby, Inc; Torontor; 2000; p.p.1562-1563.
7. 7-Iraqi cancer Board, Ministry of Health 2008.
8. Dr.Patrick walsks, Guide to serving prostate cancer, Prostate cancer Foundation (PCF) 2011.
9. Brunner &Suddarths Text Book of Medical Surgical Nursing, 12th Edition, Lippincott, Williams & Wilkins, 2010, P.1516
10. Chanwa,K.; Al-Saigh,; Siham Abueita: Effect of treatment on physical and psychosocial problems of cancer,patients in Al-Hussein center, Amman-Jordan, J-Med-J, 40 (4), 2006, p.2.
11. WHO cancer control, knowledge into action, WHO Guide for effective Programmers, prevention, 2007, p.2.
12. Catherine Pearson, Smoking And Prostate Cancer Death Linked: Study, 2oo7 www.huffingtonpost.com/catherine-pearson
13. Edward Giovannucci, Yan Liu, Elizabeth A. Platz, Meir J. Stampfer, Walter C. Willett, Risk factors for prostate cancer incidence and progression in the health professionals follow-up study, International Journal of cancer , 2007, Volume 121, Issue 7, p.p.1571-1578.
14. Hemmink,K & Li,X.; : Cancer risks in Nordic Immigrants and Their Offspring in Sweden ; Eur.J. Cancer; Vol.38, No.18.; 2002; p.p.2428-2430.
15. Jeanne M. Van Loona, Maria Tijuisa, Paul G Surteeb and Johan Ormelc, Lifestyle risk factors for cancer: the relationship with psychosocial work environment, International Epidemiological Association, April 2012 .V.41.Issue 2. P.P.785-792.
16. Koutros S, Beane Freeman LE, berndt Si, Andreotti G, Lubin JH,Sandler DP, Hoppin JA, Yu K, Li Q, Burdette LA, Yuenger J,Yeager M, Alavania MC. :National center for Biotechnology Information, U.S. National Library of Medicine, 2010,NOV 15;70 (22)
17. Michael C.R. Alavanja, Cludine Samanic, Mustafa Dosemeci, Jay Lubin, Robert Tarona, Charles F. Lynch, Charles Knott, Kent Thomas, Jane A.Hoppin, Joseph Barker, Joseph Coble, Dale P. Sandler, and Aaron Blair,: Use of Agricultural pesticides and prostate cancer Risk in the Agricultural health study cohort, American Journal of Epidemiology , 2003; vol (22), 157 ,p.p.800-814.