

Assessment of Factors That Contribute to Bladder Cancer

Khalida Mohammed Khuder*

Betool Amin Al- Ani \Professor.**

الخلاصة

الهدف: تهدف الدراسة إلى تقييم العوامل المساهمة للإصابة بسرطان المثانة وتقييم وإيجاد العلاقة بين هذه العوامل وسرطان المثانة **المنهجية:** أقيمت الدراسة في مستشفى الكرامة التعليمي، مستشفى الكندي التعليمي، مستشفى الجراحات التخصصية التعليمي ومستشفى اليرموك التعليمي واستغرقت الدراسة للمدة من تشرين الثاني ٢٠٠٣ إلى آب ٢٠٠٤ وملت عينة البحث (١٠٠) مريض مصاب بسرطان المثانة واختيرت بطريقة عرضية (غير عشوائية). صممت استمارة استبيانها لغرض الدراسة وقسمت الاستمارة إلى قسمين: المعلومات العامة والعوامل المساهمة وتم تطبيق (الاختبار وإعادة الاختبار) لثبات الاستمارة من خلال حساب معامل الارتباط (بيرسون) أما مصداقية مستوى الاستمارة فقد تم تحقيقها من خلال مجموعة من الخبراء. جمعت المعلومات من خلال الاستمارة الاستبائية وبطريقة المقابلة واستغرقت عملية جمع المعلومات من (١٠) آذار ٢٠٠٤ إلى (٥) آب ٢٠٠٤ وتم تحليل البيانات من خلال أسلوب الإحصاء الوصفي.

النتائج: أظهرت الدراسة أن أغلب أعمار العينة هي فوق (٥٠) سنة وغالبيتهم من الذكور المتزوجين وأن أكثرهم ذات مستوى ثقافي واطى وغالبية أفراد العينة مدخنين ويحتسون الشاي بكثرة كذلك أظهرت الدراسة أن هناك علاقة إحصائية بين العوامل المساهمة وسرطان المثانة.

التوصيات: أوصت الدراسة بالامتناع عن التدخين وزيادة في تناول الأغذية الحاوية على الخضرات والفواكه والتقليل من الأغذية الحاوية على الدهون وكذلك إنشاء مركز تخصصي بسرطان المثانة في العراق.

Abstract

Objective: The study aimed to assess the factors contributes of patient with bladder cancer and to find out the relationship between the factors of bladder cancer with certain variable.

Methodology: A descriptive study to assessment of factors that contribute to bladder cancer that was carried out Al-Karama teaching hospital, Al-Kendy teaching hospital, Specialty Surgery teaching hospital and Al-Yarmok teaching hospital for the period of November 2003 to August 2004. A purposive (non-probability) sample of (100) patients with bladder cancer. An assessment form was constructed for the purpose of the study. It comprised of two parts, which were dealing with the demographic information sheet, and factors contribute. Test- retest reliability was employed through computation of Pearson correlation coefficient. Content validity of assessment form was determined through a panel of experts and pilot study. Data were collected through the application of the questionnaire and interview technique. The assessment was conducted during the period (10th) March 2004 to (5th) August 2004. Data were analyzed through descriptive statistical approach.

Result: The study concluded that the age over (50) years, majority of them was male, married, they had low level education, and most of them were smoking and drinking tea.

Recommendation: The study recommended that to stop smoking and establishing specialized center of bladder cancer in Iraq.

Key words: Factors, Bladder cancer

Introduction

Bladder cancer is the most common genito urinary (G.U) malignancy; more than 90% of bladder cancer are epithelial; the majority transitional cell cancer⁽¹⁾

Tumor of the bladder ranges from small benign papilloma to large invasive carcinomas. The neoplasmas begin as papillomas; therefore premalignant is removed

* Msc

** University of Baghdad\ College of Nursing

when identified, other neoplasias include adeno carcinoma (this is often in operable) and rhabdomyosarcoma⁽²⁾. The three main contributors of cancer development can be classified as; genetic ,life style, and environmental factors⁽³⁾. Bladder cancer has a strong association with the smoking of tobacco, nearly one half of the cases occurring in men and one third of the cases occurring in women have been attributed to tobacco use⁽⁴⁾. Environmental and occupational health hazards are thought to be associated with bladder tumors. These hazards include;

- Exposure to industrial dyes, paint or rubber. Occupational exposure to sewage. Coalgas. Coffee drinking and use of artificial sweeteners⁽⁵⁾. Aim of the study is to assess the factors of bladder cancer with certain variables.

Methodology

A descriptive study (retrospective) design using the assessment as an approach for the determination of the factors that contributes to bladder cancer. The study was carried out during the period from November 2003 to August 2004.

The present study was carried out in the following: (Al-Karama teaching hospital, Al- Kendy teaching hospital, Specialty Surgery teaching hospital, Al- Yarmok teaching hospital). A purposive "non probability" sample of (100) patients with bladder cancer who admitted to the hospital is listed below. The criteria, upon which the sample selection was employed included the following:-

- 1- All patients who was diagnosed with bladder cancer. (Male & female)
- 2- Age of the patient who was diagnosed with bladder cancer was (18) years and above. Test- retest reliability was employed through computation of Pearson correlation coefficient. Content validity of assessment form was determined through a panel of experts and pilot study.

The data were collected through the utilization of a constructed questionnaire and an interview technique with the patients with bladder cancer who visit the outpatient and inpatients in the selected teaching hospital. The interview took a time table of (20) minutes for each patient when he \she is in the surgical ward. The assessment was conducted during the period from 10th March 2004 to 5th August 2004.

Data were analyzed through descriptive statistical approach (frequency & percentage)

Results

Table (1) Distribution of the study sample

1-	Gender	Frequency	Percent	Cumulative percent
	Male	75	75	75.0
	Female	25	25	100.0
	Total	100	100.0	
2-	Age			
	30-35 years	1	1.0	1.0
	36-40	2	2.0	3.0
	41-45	14	14.0	17.0
	46-50	8	8.0	25.0
	51-55	27	27.0	52.0
	56-60	10	10.0	62.0
	61-65	19	19.0	81.0
	66-70	15	15.0	96.0
	71-75	0	0	96.0
	76-80	1	1.0	97.0
	81-85	3	3.0	100.0
	Mean of age=57 years			
	Total	100	100	
3-	Marital status			
	Married	69	69.0	69.0
	Single	5	5.0	74.0
	Divorced	10	10.0	84.0
	Widowed	16	16.0	100.0
	Total	100	100.0	
4-	Religion			
	Moslem	91	91.0	91.0
	Christian	9	9.0	100.0
	Total	100	100.0	
5-	Educational level			
	No read and write	31	31.0	31.0
	read and write	15	15.0	46.0
	Primary graduate	29	29.0	75.0
	Inter mediate graduate	5	5.0	80.0
	Secondary graduate	16	16.0	96.0
	Institute, collage and above graduate	4	4.0	100.0
	Total	100	100.0	
6-	Occupation			
	Governmental officer	17	17.0	17.0
	Free job	16	16.0	33.0
	Retires	38	38.0	71.0

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	House wife	21	21.0	92.0
	Unemployed	8	8.0	100.0
	Total	100	100.0	
7-	Monthly income			
	Sufficient	10	10.0	10.0
	Barely sufficient	46	46.0	56.0
	Insufficient	44	44.0	100.0
	Total	100	100.0	
8-	BMI			
	Under 18.5 k/m ²	19	19.0	19.0
	18.5 -24.9 k/m ²	41	41.0	60.0
	25 -29.9 k/m ²	30	30.0	90.0
	30 -39.9 k/m ²	10	10.0	100.0
	Total	100	100.0	

This table reveal the majority of gender were male (75%) and most of them from age (51-55) years old accounted for (27%) and most of them were married (69%) and most of them from Moslem (91%). The majority of educational level was no read and writes (31%) and most of them were retirees (38%) and most of them were barely sufficient (46%). The table presented that the majority of BMI were (18.5-24.9K/m²) (41%).

Table (2). Distribution of setting, location of the setting, setting before (10) years and location of the setting before (10) years.

1-	Setting	Frequency	Percent	Cumulative percent
	Baghdad	48	48.0	48.0
	Euphrates intermediate	15	15.0	63.0
	North region	8	8.0	71.0
	South region	29	29.0	100.0
	Total	100	100.0	
2-	Location			
	City center	25	25.0	25.0
	Suburbs	40	40.0	65.0
	Rural area	35	35.0	100.0
	Total	100	100.0	
3-	Setting before (10) years			
	Baghdad	29	29.0	29.0
	Euphrates intermediate	24	24.0	53.0
	North region	13	13.0	66.0

	South region	34	34.0	100.0
	Total	100	100.0	
4-	Location before (10) years			
	City center	15	15.0	15.0
	Suburbs	45	45.0	60.0
	Rural area	40	40.0	100.0
	Total	100	100.0	

This table shows that the majority (48%) of sample setting was Baghdad and for those who live in the suburbs was (40%). The table presents the sample setting before (10) years were in south region (34%) and for those who live before (10) year in the suburbs was (45%).

Table (3). Distribution of smoking, smoking number, smoking duration, smoking with filter and manual cigarettes.

1-	Smoking	Frequency	Percent	Cumulative percent
	Yes	83	83.0	83.0
	No	17	17.0	100.0
	Total	100	100.0	
2-	Smoking number			
	0	17	17.0	17.0
	20	14	14.0	31.0
	22	1	1.0	32.0
	25	4	4.0	36.0
	30	10	10.0	46.0
	40	30	30.0	76.0
	50	16	16.0	92.0
	60	8	8.0	100.0
	Total	100	100.0	
3-	Smoking duration			
	No smoking	17	17.0	17.0
	6-10 years	9	9.0	26.0
	11-15	13	13.0	39.0

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	16-20	15	15.0	54.0
	21-25	5	5.0	59.0
	26-30	25	25.0	84.0
	31-35	0	0.0	84.0
	36-40	5	5.0	89.0
	41-45	11	11.0	100.0
	Total	100	100.0	
4-	Smoking with filter			
	No smoking	17	17.0	17.0
	With filter	68	68.0	85.0
	Without filter	15	15.0	100.0
	Total	100	100.0	
5-	Manual cigarettes			
	No smoking	17	17.0	17.0
	Manual cigarettes	46	46.0	63.0
	Artificial cigarettes	37	37.0	100.0
	Total	100	100.0	

This table shows that the majority were smoking (83%) and most of them were smoking (40) cigarettes per day (30%) and most of smoking duration was (26-30) years (25%) and most of them were smoking with filter (68%) and most of them were making manual cigarettes (46%).

Table (4) Distribution of alcohol drinking, drinking amount, tea, coffee and coffee duration.

1-	Drinking	Frequency	Percent	Cumulative percent
	Yes	9	9.0	9.0
	No	91	91.0	100.0
	Total	100	100.0	
2-	Drinking amount			
	No drinking	91	91.0	91.0
	Some time drinking	9	9.0	100.0

	Total	100	100.0	
3-	Tea			
	Yes	95	95.0	95.0
	No	5	5.0	100.0
	Total	100	100.0	
4-	Coffee			
	Yes	36	36.0	36.0
	No	64	64	100.0
	Total	100	100.0	
5-	Coffee duration			
	0	64	64.0	64.0
	10 years	21	21.0	85.0
	12	5	5.0	90.0
	20	5	5.0	95.0
	40	5	5.0	100.0
	Total	100	100.0	

This table shows that the majority of the samples were not drinking (91%) and all of drinking was some time drinking (9%). The table presented that most of them were drinking tea (95%) and most of them were not drinking coffee (64%) and most of coffee duration was (10) years accounted for (21%).

Discussion

The finding indicated that the majority (75%) of the study sample was males. These findings were in good agreement with that obtained by other researcher who found that the bladder cancer is three to five times more frequent in male than females⁽⁶⁾. In relation to age, the findings showed that the majority (27%) of bladder cancer patients was at age of (51-55) years with a mean of age (57) years (Table 1).

Those findings were similar to those obtained from the two studies. The first one noted that the median age of the patient with bladder cancer was (55) years old and the second one revealed that incidence of bladder cancer increases with age, and few cases occur in individual under the age of (40), the median age of patient is (55-60) years⁽⁷⁾. (96%) patients were married. This result agrees well with that of other researcher who found that married are exposed to infection more than non married and this leads to bladder cancer⁽⁸⁾. The present study indicated that the majority (91%)

of the patient's were Moslems and this may be because that the religion prevailed in Iraq is the Islam.

Thirty one percent of patients were not reading and writing most (38%) of them were retired and the monthly incomes for (46%) of them were barely sufficient. Other study supported this result who stated that people who have low monthly income experience greater exposure to bladder cancer⁽⁹⁾. Relative to BMI the majority of them were (18.5- 24.9 K/m²) normal weight accounted (41%) (Table 1).

The study indicated that the majority (48%) of the study sample live in Baghdad and most (40%) of them live in the suburbs and the setting of living before (10) years were in south region of Iraq. (34%) and they live in this region before (10) years in the suburbs from the south of Iraq (Table 2) . This finding supported by Iraq Cancer Board (1999) which reported that most of the incidence bladder cancer is in the middle and southern governorates of Iraq accounted for (The-Qar 19.42%, Al-Muthana 15.32%, Wasit 12.73%, Al-Qadisyah 18.42%, Kerbala 9.90%, Baghdad 6.76% and Maysan 11.82%)⁽¹⁰⁾

The study indicated that the majority (83%) of study sample were smoking and most (30%) of them were smoking (40) cigarettes per day and most (25%) of smoking duration was (26-30) years and most (68%) of them were smoking with filter and most (46%) of them were smoking manual cigarettes (Table 3). This finding was supported by literature-related studies, which indicated that cigarette smoking plays an important risk factor in the occurrence of bladder cancer⁽¹¹⁾.

The study indicated that the majority (91%) of the study sample were not alcohol drinking the remaining of them were some time drinking (Table 4). Other researcher supported this finding who stated that alcohol consumption was associated with relative risks less than unity⁽¹²⁾. Related to drinking of tea most (94%) of the sample were drinking tea and most (94%) of them were not drinking coffee and the majority of coffee duration was (10) years accounted for (21%). This result was supported by other researcher who suggested that tea consumption was inversely associated with bladder cancer and there is a possible positive association between coffee consumption and bladder cancer risk in men and probable inverse association in women⁽¹³⁾.

Recommendations

1-Stop smoking.

- 2-Prevent and control urinary tract infections.
- 3- Establishing specialized center for bladder cancer in Iraq.

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