IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 24, Issue 8 Ser. 2 (August. 2025), PP 72-80
www.iosrjournals.org

Frequency of Carcinoma of Urinary Bladder in Bladder Tissue Samples Collected from Different Tertiary Level Hospitals in Dhaka City-A Retrospective Study

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Abstract

Introduction: *Bladder cancer is one of the most common cancer in men accounting for 6.6% of all cancer cases in the world. In women, it is the ninth most common cancer accounting for 2.4% of all cancer cases. The prevalence of bladder also seems to be increasing due to increasing number of aging people, increased exposure to carcinogens but unfortunately till today, there is no available data on prevalence of bladder cancer in our country.*

Aim of the study: *The aim of the study is to assess frequency of carcinoma of urinary bladder in bladder tissue samples collected from different tertiary level hospitals in dhaka.*

Methods: *This cross sectional study on 819 patients of carcinoma of urinary bladder was done in 10 different hospitals in Dhaka city. This study was carried out from January 2007 to December 2009. All specimen of bladder tissue that was sent for histopathological examination were included in the study. All specimen of bladder tissue that was sent for histopathological examination that reveals other diagnosis than cancer were excluded from the study.*

Results: *A total of 1088 patients included in the study, out of which 819(75.3%) patients having carcinoma at 95% Confidence Interval (Cl) (72.7% to 77.8%) and rest 269(24.7%) others (Benign tumour, Tubercular cystitis, Chronic cystitis) at 95% Cl (22.2%-27.3%). According to histopathological report it was observed that 792(96.7%) transitional cell carcinoma (TCC) at 95% CL (95.5% to 97.9%), 10(1.2%) squamous cell carcinoma (SCC) at 95% Cl (0.5% to 2.0%), 13(1.6%) Adenocarcinoma at 95% Cl (0.7 to 2.4%) and 4(0.5%) Mixed type (Embryonal rhabdomyoscarcoma, Scarcomatoid Ca) at 95% Cl (0 to 1.0%). In traditional cell carcinoma (TCC) it was observed that nearly one third (31.7%) of the patients belonged to 61-70 years. In squamous cell carcinoma (SCC), most (40.0%) of the patients belonged to 41-50 years. Adenocarcinoma more frequent in 41-70 years age group and mixed type was found 2(50.0%) in 51-60 years age group and 2(50.0%) in 81-90 years age groups. It was observed that TCC were found 195(24.6%) and 597(75.4%), SCC was found 6(60.0%) and 4(40.0%), Adenocarcinoma was found 5(38.5%) and 8(61.5%) in <50 years and ≥ 50 years of aged patients respectively. It was observed that all of the patients had mixed type tumor were ≥ 50 years.*

Conclusion: *Muscle invasive- advance stage ((T2, T3, T4) cancers were prevalent in 42.4% (95%CI=39.0-44.1) cases. High grade tumors were detected 54.8% (95% CI=51.4-56.5) cases, statistically significant difference was found in between SCC vs other cancers (p<0.05. TCC had the highest frequency. All the subtypes cancers were of more common in the male sex group than female, there was no statistically significant difference found in between the subtypes of cancers (p>0.05).*

Keywords: *Urinary Bladder Carcinoma*

I. Introduction

Urinary bladder cancer is one of the most common cancers world Wide.[1] 95% of the primary bladder tumors originate in the epithelium (Transitional, Squamous, Adenocarcimoma and Mixed) and 5% arise from the connective tissue (Angioma, Myoma. Fibroma and Sarcoma). Among the epithelial tumors over 90% are transitional, 5% squamous cell (apart from areas where Bilharziassis is endemic) and 1- 2% are Adenocarcinoma.[2] Bladder cancer is Currently the seventh most common cancer World Wide, with 273000 new cases and more than

108000 deaths estimated to have occurred in the year 2002.[3] Bladder Cancer is the 5th most Common malignancy in Europe and the fourth most common malignancy in United States.[4] It accounts 7% of new Cancer Cases, in men and 2% of new Cancer cases in women. The average age at diagnosis is 65 years. At that time approximately 75% bladder cancers are localized at the bladder, 25% have spread to regional lymph node or distant sites.[5] It was estimated that in 2005 there would be 13180 bladder Cancer deaths- 8970 men and 4210 women - making the bladder cancer the ninth most common cause of cancer deaths in American men. Bladder Cancer accounts for 3.0% of all cancer deaths in men and 1.5% in women.[6] During the past 20 years, an increased risk of bladder cancer has been identified due to increased in cigarette consumption.[7] Various industries exposed workers to a number of aromatic amines (Wallace, 1988) and other non- occupational risk factors, as well as the over all aging of the population.[8,9] Bladder Cancer is not uncommon in our country. But unfortunately there is no reliable data on the prevalence of the disease yet today a study on frequency of bladder cancer will be a mile stone work in this field and will be much helpful for the urologists, researchers, health policy makers of the country. The proposed study is a retrospective observational study of 3 years in which recorded data on bladder disease (histopathological diagnosis) from renowned hospitals and clinics of Dhaka city will be collected to see the frequency of bladder cancer. Bangladesh is a small country of about 144000 sq.km with a vast population of more than 150 millions. The number of aging people as well as exposure to carcinogen is increasing day by day. Bladder cancer is a disease of aging people and it is probable that the number of people with bladder cancer is also increasing day by day. Our country is largely centralized to the capital city Dhaka. Much of the modern treatment facilities including urological treatment are also centralized to Dhaka. So, it can be assumed logically that a major portion of the bladder cancer cases from different corner of the country are diagnosed and managed in Dhaka city. As a result, data from the renowned public and private hospitals and urological centers of Dhaka city will cover majority of the cases of bladder cancer in the country. Thus this study will reflect a major portion of the bladder cancer cases and will help predict the overall frequency of the disease in the country. The aim of the study is to assess frequency of carcinoma of urinary bladder in bladder tissue samples collected from different tertiary level hospitals in dhaka city.

II. Methods

This cross sectional study on 819 patients of carcinoma of urinary bladder was done in 10 different hospitals in Dhaka city namely BSMMU, DMCH, SSMCH, NIKDU, BIRDEM, The Laboratory, Comfort Nursing home, Barakah Kidney Hospital and Diagnostic centre. United Hospital, Lab Aid Hospital, Dhaka. This study was carried out from January 2007 to December 2009. All specimen of bladder tissue that was sent for histopathological examination were included in the study. All specimen of bladder tissue that was sent for histopathological examination that reveals other diagnosis than cancer were excluded from the study.

III. Results

Table 1: Distribution of the whole study patients (n=1088)

Disease name	Number of patients (n)	Percentage (%)	Cl (95%) (Lower-Upper)
Carcinoma	819	75.3	72.7-77.8
Others	269	24.7	22.2-27.3
Total	1088	100	

A total of 1088 patients included in the study, out of which 819(75.3%) patients having carcinoma at 95% Confidence Interval (Cl) (72.7% to 77.8%) and rest 269(24.7%) others (Benign tumour, Tubercular cystitis, Chronic cystitis) at 95% Cl (22.2%-27.3%).

Table 2: Distribution of the patients by histopathological diagnosis (n=819)

Histopathological Diagnosis	Number of patients (n)	Percentage (%)	Cl (95%) (Lower-Upper)
TCC	792	96.7	95.5-97.9
SCC	10	1.22	0.5-2.0
Adeno Ca	13	1.58	0.7-2.4
Mixed	4	0.48	0.0-1.0
Total	819	100	

According to histopathological report it was observed that 792(96.7%) transitional cell carcinoma (TCC) at 95% CL (95.5% to 97.9%), 10(1.2%) squamour cell carcinoma (SCC) at 95% Cl (0.5% to 2.0%), 13(1.6%) Adenocarcinoma at 95% Cl (0.7 to 2.4%) and 4(0.5%) Mixed type (Embryonal rhabdomyoscarcoma, Scarcomatoid Ca) at 95% Cl (0 to 1.0%).

Table 3: Distribution of the patients by age (n=819)

Age	TCC (n)	Percentage (%)	SCC (n)	Percentage (%)	Adeno Ca (n)	Percentage (%)	Mixed type (n)	Percentage (%)	Total (n)	Percentage (%)	Cl (95%) (Lower-Upper)
10-20	2	0.3	0	0	0	0	0	0	2	0.2	0-0.5
20-30	30	3.8	0	0	0	0	0	0	30	3.7	2.4-4.4
30-40	42	5.3	2	20	1	7.7	0	0	45	5.5	3.9-6.3
40-50	121	15.3	4	40	4	30.8	0	0	129	15.8	13.3-17.4
50-60	207	26.1	2	20	4	30.8	2	50	215	26.3	23.3-27.8
60-70	251	31.7	2	20	4	30.8	0	0	257	31.4	28.2-33.0
20-30	110	13.9	0	0	0	0	0	0	110	13.4	11.1-14.6
80-90	29	3.7	0	0	0	0	2	50	31	3.8	2.5-4.5
Total	792	100	10	100	13	100	4	100	819	100	

Median age group=50-60 years of age

In traditional cell carcinoma (TCC) it was observed that nearly one third (31.7%) of the patients belonged to 61-70 years, followed by 207(26.1%) between 51-60 years, 121(15.3%) between to 41-50 years, 110(13.9%) between to 71-80 years, 42(5.3%) between to 31-40 years, 30(3.8%) between to 21-30 years, 29(3.7%) between to 81-90 years and 2(0.3%) between to 10-20 years. In squamous cell carcinoma (SCC), most (40.0%) of the patients belonged to 41-50 years. Adecarcinoma more frequent in 41-70 years age group and mixed type was found 2(50.0%) in 51-60 years age group and 2(50.0%) in 81-90 years age groups.

Table 4: Age distribution of the patients by TCC, SCC, Adenocarcinoma, Mixed Type vs other cancers (n=819)

Age	Number of patients (n)	Percentage (%)	Others (n)	Percentage (%)	Cl (95%) (Lower-Upper)	P Value
TCC (n=792)						
<50	195	24.6	11	40.7	21.6-27.6	0.057^{ns}
≥50	597	75.4	16	59.3	72.4-76.9	
SCC						
<50	6	60	200	24.7	29.6-75.5	0.010^{s}
≥50	4	40	609	75.3	9.6-55.5	
Adeno Ca						
<50	5	38.5	201	24.9	12.0-52.0	0.264^{ns}
≥50	8	61.5	605	75.1	35.0-75.0	
Mixed Type						
<50	0	0	206	25.3	0.0-0.0	0.245^{ns}
≥50	4	100	609	74.7	100.0-100.0	

S= Significant
NS=Not Significant
P value reached from chi square test
Chi square value=3.6, degrees of freedom=1, p value=0.057 (TCC)
Chi square value= 6.53, degrees of freedom= 1, p value= 0.010 (SCC)
Chi square value= 1.24, degrees of freedom= 1, p value= 0.264 (Adenocarcinoma)
Chi square value= 1.35, degrees of freedom= 1, p value= 0.245 (Mixed type)
It was observed that traditional cell carcinoma (TCC) were found 195(24.6%) and 597(75.4%) in <50 and ≥50 years of aged patients respectively. Other tumor was found 11(40.7%) in <50 years and 16(59.3%) in ≥50 years of aged patients. Chi square test was done but significant ($p>0.05$) difference was not found between TCC and others. It was observed that squamous cell carcinoma (SCC) was found 6(60.0%) and 4(40.0%) in <50 years and ≥ 50 years of aged patients respectively. However, other tumor was found 200(24.7%) in <50 years and 609(75.3%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant ($p<0.05$) difference was found between SCC and other cancers. It was observed that Adenocarcinoma was found 5(38.5%) and 8(61.5%) in <50 years and ≥ 50 years of aged patients respectively. However, other tumor was found 201(24.9%) in <50 years and 605(75.1%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant ($p<0.05$) difference was found between Adenocarcinoma and other cancers. It was observed that all of the patients had mixed type tumor were ≥ 50 years. However, other tumor was found 206(25.3%) in <50 years and 605(75.1%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant ($p<0.05$) difference was not found between Adenocarcinoma and other cancers.

Table 5: Distribution of the patients by Sex (n=819)

Sex	TCC (n)	Percentage (%)	SCC (n)	Percentage (%)	Adeno Ca (n)	Percentage (%)	Mixed type (n)	Percentage (%)	Total (n)	Percentage (%)	CI (95%) (Lower-Upper)
Male	598	75.5	6	60	7	53.8	4	100	615	75.1	72.1-78.1
Female	194	24.5	4	40	6	46.2	0	0	204	24.9	21.9-26.4
Total	792	100	10	100	13	100	4	100	819	100	

It was observed that transitional cell carcinoma (TCC) were found 598(75.5%) and 194(24.5%) in male and female patients respectively. Squamous cell carcinoma was found 6(60.0%) in male and 4(40.0%) in female patients. Adenocarcinoma was found 7(53.8%) in male and 6(46.2%) in female patients. Mixed type was found 4(100.0%) in male patient and not found in female patients.

Table 6: Sex distribution of the patients by TCC, SCC, Adenocarcinoma, Mixed Type vs other cancers (n=819)

Sex	Number of patients (n)	Percentage (%)	Others (n)	Percentage (%)	CI (95%) (Lower-Upper)	P Value
TCC						
<50	195	24.6	11	40.7	21.6-27.6	0.057^{ns}
≥50	597	75.4	16	59.3	72.4-76.9	
ACC						
Male	6	60	609	75.3	29.6-75.5	0.266^{ns}
Female	4	40	200	24.7	9.6-55.5	
Adenocarcinoma						
Male	7	53.8	608	75.4	26.7-67.6	0.074^{ns}
Female	6	46.2	198	24.6	19.1-60.0	
Mixed type						
Male	4	100	611	75	100.0-100.0	0.248^{ns}
Female	0	0	204	25	0.0-0.0	

S=Significant
NS=Not Significant
Chi square value=3.6, degrees of freedom=1, p value=0.057 (TCC)
Chi square value= 1.23, degrees of freedom= 1, p value= 0.266 (SCC)
Chi square value= 3.19, degrees of freedom= 1, p value= 0.074 (Adenocarcinoma)
Chi square value= 1.33, degrees of freedom= 1, p value= 0.248 (Mixed type)
It was observed that traditional cell carcinoma (TCC) were found 195(24.6%) and 597(75.4%) in <50 and ≥50 years of aged patients respectively. Other tumor was found 11(40.7%) in <50 years and 16(59.3%) in ≥50 years of aged patients. Chi square test was done but significant (p>0.05) difference was not found between TCC and others. It was observed that squamous cell carcinoma (SCC) were found 6(60.0%) and 4(40.0%) in male and female patients respectively. Other tumor was found 609(75.3%) in male and 200 (24.70%) in female patients. Statistically significant (p>0.05) difference was not found between squamous cell carcinoma (SCC) and other cancers. It was observed that Adenocarcinoma were found 7(53.80%) and 6(46.2%) in male and female patients respectively. Other tumor was found 608(75.4%) in male and 198(24.6%) in female patients. Statistically significant (p>0.05) difference was not found between Adenocarcinoma and other cancers. It was observed that mixed type cancer was found in all of the male and female patients. Other tumor was found 611(75.0%) in male and 204(25.0%) in female patients. Statistically significant (p>0.05) difference was not found between mixed type and other cancers.

Table 7: Distribution of the patients by T-Staging (n=819)

Sex	TCC (n)	Percentage (%)	SCC (n)	Percentage (%)	Adeno Ca (n)	Percentage (%)	Mixed type (n)	Percentage (%)	Total (n)	Percentage (%)	CI (95%) (Lower-Upper)
Non muscle invasive tumor (NMIBC)	270	34.1	6	60	4	30.8	0	0	280	34.2	31.0-37.4
Muscle invasive tumor (MIBC)	334	42.2	4	40	5	38.5	4	100	347	42.4	39.0-44.1
Total	792	100	10	100	13	100	4	100	819	100	

It was observed that transitional cell carcinoma (TCC) were found 270(34.1%) and 334(42.2%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. However, TCC staging was

not done in 188(23.7%) of the patients. Squamous cell carcinoma was found 6(60.0%) in non muscle invasive tumor (NMIBC) and 4(40.0%) in muscle invasive tumor (MIBC) patients. Adenocarcinoma was found 4(30.8%) in non muscle invasive tumor (NMIBC) and 5(38.5%) in muscle invasive tumor (MIBC) patients and staging not done in 4(30.8%) of the patients. Mixed type was found 4(100.0%) in muscle invasive tumor (MIBC) patients and not found in non muscle invasive tumor (NMIBC) patients.

Table 8: T-Staging distribution of the patients by TCC, SCC, Adenocarcinoma, Mixed Type vs other stages (n=627)

Stage	**TCC (n=604)**	**Percentage (%)**	**Others (n=23)**	**Percentage (%)**	**TCC, Cl(95%) (Lower-Upper)**	**P Value**
Non muscle invasive tumor (NMIBC)	270	44.7	10	43.5	40.8-48.6	0.907ns
Muscle invasive tumor (MIBC)	334	55.3	13	56.5	51.4-57.3	
Stage	**SCC(n=10)**	**Percentage (%)**	**Others (n=617)**	**Percentage (%)**	**SCC, Cl(95%) (Lower-Upper)**	**P Value**
Non muscle invasive tumor (NMIBC)	6	60	274	44.4	29.6-75.5	0.325ns
Muscle invasive tumor (MIBC)	4	40	343	55.6	9.6-55.5	
Stage	**Adeno Ca(n=9)**	**Percentage (%)**	**Others (n=618)**	**Percentage (%)**	**Adeno Ca, Cl(95%) (Lower-Upper)**	**P Value**
Non muscle invasive tumor (NMIBC)	4	44.5	276	44.7	12.0-77.0	0.989ns
Muscle invasive tumor (MIBC)	5	55.5	342	55.3	23.0-72.1	
Stage	**Mixed type(n=4)**	**Percentage (%)**	**Others (n=623)**	**Percentage (%)**	**Mixed type, Cl(95%)**	**P Value**
Non muscle invasive tumor (NMIBC)	0	0	280	44.9	0.0-0.0	0.071ns
Muscle invasive tumor (MIBC)	4	100	343	55.1	100.0-100.0	

NS= Not Significant

P value reached from chi square test

Chi square value= 0.01, degrees of freedom= 1, p value=0.907 (TCC)

Chi square value= 0.97, degrees of freedom= 1, p value=0.325 (SCC)

Chi square value= 0.00, degrees of freedom= 1, p value=0.989 (Adenocarcinoma)

Chi square value= 3.25, degrees of freedom= 1, p value=0.071 (Mixed type)

It was observed that transitional cell carcinoma (TCC) were found 270(44.7%) and 334(55.3%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 10(43.5%) in non muscle invasive tumor (NMIBC) patients respectively and 13(56.5%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between transitional cell carcinoma (TCC) and other tumours. It was observed that squamous cell carcinoma (TCC) were found 6(60.0%) and 4(40.0%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 274(44.4%) in non muscle invasive tumor (NMIBC) patients respectively and 343(55.6%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between squamous cell carcinoma (SCC) and other tumours. It was observed that Adenocarcinoma were found 4(44.5%) and 5(55.5%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 276(44.7%) in non muscle invasive tumor (NMIBC) patients respectively and 342(55.3%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between Adenocarcinoma and other tumours. It was observed that all patients had mixed type cancers in muscle invasive tumor (MIBC). Other tumor was found 280(44.9%) in non muscle invasive tumor (NMIBC) patients and 343(55.1%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between mixed type and other tumors.

Table 9: Distribution of the patients by grade (n=819)

Grade	TCC(n)	Percentage (%)	SCC(n)	Percentage (%)	Adeno Ca(n)	Percentage (%)	Mixed type(n)	Percentage (%)	Total (n)	Percentage (%)	Cl (95%)(Lower-Upper)
Low	243	30.7	6	60	1	7.7	0	0	250	30.5	27.3-33.7
High	435	54.9	2	20	8	61.5	4	100	449	54.8	51.4-56.5
Not done	114	14.4	2	20	4	30.8	0	0	120	14.7	12.3-15.9
Total	792	100	10	100	13	100	4	100	819	100	

It was observed that transitional cell carcinoma (TCC) were found 243(30.7%) and 435(54.9%) in low and high grade patients respectively. However, TCC grading was not done in 114(14.4%) of the patients. Squamous cell carcinoma was found 6(60.0%) in low and 2(20.0%) in high grade patients and grading not done in 2(20.0%) of the patients. Adenocarcinoma was found 1(7.7%) in low and 8(61.5%) in high grade patients and grading not done in 4(30.8%) of the patients. Mixed type was found 4(100.0%) in high grade patients and not found in low grade patients.

Table 10: Grade distribution of the patients by TCC, SCC, Adenocarcinoma, Mixed Type vs other grades (n=699)

Grade	TCC(n=678)	Percentage (%)	Others (n=21)	Percentage (%)	TCC, Cl(95%) (Lower-Upper)	P Value
Low	243	35.8	7	33.3	32.2-39.4	0.813ns
High	435	64.2	14	66.7	61.2-68.4	
Grade	**TCC(n=678)**	**Percentage (%)**	**Others (n=21)**	**Percentage (%)**	**SCC, Cl(95%) (Lower-Upper)**	**P Value**
Low	6	75	244	35.3	45.0-100.0	0.027ns
High	2	25	447	64.7	0.0-55.0	
Grade	**Adeno Ca (n=9)**	**Percentage (%)**	**Others (n=690)**	**Percentage (%)**	**Adeno Ca, Cl(95%) (Lower-Upper)**	**P Value**
Low	1	11.1	249	36.1	0.0-31.6	0.110ns
High	8	88.9	441	63.9	68.4-100.0	
Grade	**Mixed type (n=9)**	**Percentage (%)**	**Others (n=690)**	**Percentage (%)**	**Mixed type, Cl(95%) (Lower-Upper)**	**P Value**
Low	0	0	250	36	0.0-0.0	0.169ns
High	4	100	445	64	100.0-100.0	

NS= Not Significant

P value reached from chi square test

Chi square value= 0.06, degrees of freedom= 1, p value=0.813 (TCC)

Chi square value= 3.83, degrees of freedom= 1, p value=0.027 (SCC)

Chi square value= 1.09, degrees of freedom= 1, p value=0.110 (Adenocarcinoma)

Chi square value= 0.95, degrees of freedom= 1, p value=0.169 (Mixed type)

It was observed that transitional cell carcinoma (TCC) were found 243(35.8%) and 435(64.2%) in low and high grade patients respectively. Other tumor was found 7(33.3%) in low and 14(66.7%) in high grade patients. Statistically significant ($p>0.05$) difference was not found between transitional cell carcinoma (TCC) and other tumors. It was observed that squamous cell carcinoma (SCC) was found 6(75.0%) in low grade patients and 2(25.0 %) in high grade patients. Other was found 244(35.3%) in low and 447(64.7%) in high grade patients. Statistically significant ($p<0.05$) difference was found between squamous cell carcinoma (SCC) and other tumors. It was observed that Adenocarcinoma was found 1(11.1%) low grade patients and 8(88.9%) in high grade patients. Other was found 249(36.1%) in low and 441(63.9%) in high grade patients. Statistically significant ($p>0.05$) difference was not found between Adenocarcinoma and other tumors. It was observed that all of the patients of mixed type had high grade. Other was found 250(36.0%) in low and 445(64.0%) in high grade patients. Statistically significant ($p<0.05$) difference was not found between mixed type and other tumors.

IV. DISCUSSION

Bladder cancer incidence is lowest in Asia South America, approximately 70% lower than in Western industrialized countries. Marked variation in bladder cancer incidence occurs not only between but also within countries. Italy, which had one of the highest rates for males world wide (41.1 in Genua province), also had a rate of 27.9 in Ragusa province. Because of its high recurrence rate, the actual prevalence of active bladder cancer is estimated to be about 10 times the number of new cases.[1] A total of 1088 patients included in the study, out of which 819(75.3%) patients having carcinoma at 95% Confidence Interval (Cl) (72.7% to 77.8%) and rest 269(24.7%) others (Benign tumour, Tubercular cystitis, Chronic cystitis) at 95% Cl (22.2%-27.3%). Ohio cancer incidence surveillance system (OCISS - from 1999 to 2003) reported cancer of the urinary bladder made up 4.8 percent. According to histopathological report it was observed that 792(96.7%) transitional cell carcinoma (TCC) at 95% CL (95.5% to 97.9%), 10(1.2%) squamous cell carcinoma (SCC) at 95% Cl (0.5% to 2.0%), 13(1.6%) Adenocarcinoma at 95% Cl (0.7 to 2.4%) and 4(0.5%) Mixed type (Embryonal rhabdomyoscarcoma, Scarcomatoid Ca) at 95% Cl (0 to 1.0%). Median age group=50-60 years of age. In traditional cell carcinoma (TCC) it was observed that nearly one third (31.7%) of the patients belonged to 61-70 years, followed by 207(26.1%) between 51-60 years, 121(15.3%) between to 41-50 years, 110(13.9%) between to 71-80 years, 42(5.3%) between to 31-40 years, 30(3.8%) between to 21-30 years, 29(3.7%) between to 81-90 years and 2(0.3%) between to 10-20 years. In squamous cell carcinoma (SCC), most (40.0%) of the patients belonged to 41-50 years. Adecarcinoma more frequent in 41-70 years age group and mixed type was found 2(50.0%) in 51-60 years age group and 2(50.0%) in 81-90 years age groups. The median age of bladder cancer patients showed marked variation between countries, the median age at diagnosis of urinary bladder cancer occurred in the 70 to 74 years age group, for both males and females, urinary bladder cancer incidence rates increased with advancing age group (for age 30 and older) among both males and females (ohio cancer incidence surveillance system, 2006). For both sexes, the youngest median age was that of Egyptian (61.6 years), followed by Jordanians 62.2 years), median age Cypriots, and US SEER were all in the 70s (statistics of Egypt, Jordan and US SEER 1996-2001). In the present series, carcinoma of urinary bladder the median age group 50- 60 years. Statistically significant (p0.05) difference was found between SCC and other cancers in <50 years and ≥50 years of aged patients. This present series and Arab populations (Egyptian, Jordanians) were relatively young compared with US SEER. This relatively low median age populations, with 50% younger than age 60 years, has serious public health implications due to reproductive years of life lost due to bladder cancer. For urinary bladder cancer, the two most common histological subgroups that make up more than 90 percent of all histological. These are transitional call carcinoma, not other wise specified and papillary transitional call carcinoma attached by stalks and have a wart like appearance have a better prognosis than those diagnosed with non papillary urinary bladder cancers. For both males and females, incidence rates of TCC, NOS (Not Otherwise Specified) of the urinary bladder are less then half those of papillary TCC (SEER 2006). For TCC the ASR for both sexes together showed marked variation between registries. The highest rate was that of Israeli Jews (13.5) almost double the lowest rate (Jordanians 6.9), The US, SEER rate was 11.5 (rates per 100,000, MECC and US SEER 1999-2001). In Kashmir histology of operated specimens showed that 98% of the patents were having TCC, 2% had adenocarcinoma (arising from urachus), No patients had SCC.[2] Bladder cancers in Malawi have features similar to these from other areas of Africa and the Middle East endemic of S. haematobium, most were SCC 80.1%, only 6.2% were TCC.[10] In this series TCC 96.75% (95% CI=95.5-97.9), SCC 1.22% (95% CI=0.5-2.0), Adencarcinoma, 1.58% (95.5CI -0.7-2.4), Mixed type 48% (95.5CI=0.0-1.0), which is nearly similar with Kashmir and SEER (2006). It is an another important determinant of survival, it represents aggressiveness of tumor to progress higher stage or tumor recurrence. In kasmir 42% of the patients had well differentiated (Grade-1), 30% had moderately well differentiated (Grade 2) tumours and only 22% had poorly differentiated tumors. That is mostly the growths are well differentiated.[2] In Malawi bladder cancer were mostly well to moderately differentiated.[10] It was observed that traditional cell carcinoma (TCC) were found 195(24.6%) and 597(75.4%) in <50 and ≥50 years of aged patients respectively. Other tumor was found 11(40.7%) in <50 years and 16(59.3%) in ≥50 years of aged patients. Chi square test was done but significant (p>0.05) difference was not found between TCC and others. It was observed that squamous cell carcinoma (SCC) was found 6(60.0%) and 4(40.0%) in <50 years and ≥ 50 years of aged patients respectively. However, other tumor was found 200(24.7%) in <50 years and 609(75.3%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant (p<0.05) difference was found between SCC and other cancers. It was observed that Adenocarcinoma was found 5(38.5%) and 8(61.5%) in <50 years and ≥ 50 years of aged patients respectively. However, other tumor was found 201(24.9%) in <50 years and 605(75.1%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant (p<0.05) difference was found between Adenocarcinoma and other cancers. It was observed that all of the patients had mixed type tumor were ≥ 50 years. However, other tumor was found 206(25.3%) in <50 years and 605(75.1%) in ≥ 50 years of aged patients. Chi square test was done and statistically significant (p<0.05) difference was not found between Adenocarcinoma and other cancers. In this present series the most common grade at diagnosis high grade about 54.8% (95% CI -51.4-56.5), low grade 30.5% (95% CI -27.3- 33.7) and grade not done in 14.7% (95% CI = 12.3-15.9) of cases. Statistically significant

difference was found in between SCC vs other cancers ($p<0.05$). It was observed that transitional cell carcinoma (TCC) were found 270(44.7%) and 334(55.3%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 10(43.5%) in non muscle invasive tumor (NMIBC) patients respectively and 13(56.5%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between transitional cell carcinoma (TCC) and other tumours. It was observed that squamous cell carcinoma (TCC) were found 6(60.0%) and 4(40.0%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 274(44.4%) in non muscle invasive tumor (NMIBC) patients respectively and 343(55.6%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between squamous cell carcinoma (SCC) and other tumours. It was observed that Adenocarcinoma were found 4(44.5%) and 5(55.5%) in non muscle invasive tumor (NMIBC) and muscle invasive tumor (MIBC) patients respectively. Other tumor was found 276(44.7%) in non muscle invasive tumor (NMIBC) patients respectively and 342(55.3%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between Adenocarcinoma and other tumours. It was observed that all patients had mixed type cancers in muscle invasive tumor (MIBC). Other tumor was found 280(44.9%) in non muscle invasive tumor (NMIBC) patients and 343(55.1%) in muscle invasive tumor (MIBC) patients. Statistically significant ($p>0.05$) difference was not found between mixed type and other tumors. It was observed that transitional cell carcinoma (TCC) were found 243(35.8%) and 435(64.2%) in low and high grade patients respectively. Other tumor was found 7(33.3%) in low and 14(66.7%) in high grade patients. Statistically significant ($p>0.05$) difference was not found between transitional cell carcinoma (TCC) and other tumors. It was observed that squamous cell carcinoma (SCC) was found 6(75.0%) in low grade patients and 2(25.0 %) in high grade patients. Other was found 244(35.3%) in low and 447(64.7%) in high grade patients. Statistically significant ($p<0.05$) difference was found between squamous cell carcinoma (SCC) and other tumors. It was observed that Adenocarcinoma was found 1(11.1%) low grade patients and 8(88.9%) in high grade patients. Other was found 249(36.1%) in low and 441(63.9%) in high grade patients. Statistically significant ($p>0.05$) difference was not found between Adenocarcinoma and other tumors. It was observed that all of the patients of mixed type had high grade. Other was found 250(36.0%) in low and 445(64.0%) in high grade patients. Statistically significant ($p<0.05$) difference was not found between mixed type and other tumors.

Limitations of The Study

The study was conducted in a single hospital with a small sample size with limited access in the hospital.So, the results may not represent the whole community.

V. CONCLUSION

In Bangladesh bladder cancer is one of the common cancer, the median age group 50-60 years of age, is younger than in the west. TCC had the highest frequency. Probably the late stage presentation is due to lack of health awareness of the patients and medical professionals.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee.

VI. RECOMMENDATION

A large scale prospective study involving all the hospitals of the country should be done to find out the actual prevalence of the disease in the country. Efforts toward smoking control and respecting the right of nonsmokers must be intensified and exposure to carcinogen should avoid. Patient having symptoms of urinary bladder consult to your doctor. National cancer registry should open and ensure reporting throughout the country.

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