Clinicopathological Patterns of Malignant Solid Tumors in Adult Patients Admitted in a Tertiary Care Hospital in Bangladesh

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Preface

- The term cancer refers to a group of diseases which share similar characteristics. Cancer can affect all living cell in the body, at all ages and in both sex. The causation is multifactorial and the diseases process differ at different sites.
- A variety of theoretical model has been developed. Among them Lloyd et al developed by addressing issue at the tissue level, where the phenomena is modeled as continuum partial differential equations.

- Study dataset has already been accepted in Equator Network Analysis for transparency and validity
- Study has been accepted in Cureus journal USA

Methods

❑ Study Design

The work was a descriptive cross sectional study. Data were collected from respondents only and conducted at the Dhaka Medical College Hospital , from January 2018 to june 2018, the largest referral hospital in Bangladesh. All Patients with diagnosed case of malignant solid tumor among adult admitted in department of medicine in Dhaka medical college Hospital were enrolled.

Inclusion Criteria

Patients , age >18 years with histopathologically confirmed solid malignant tumor in the department of medicine, Dhaka Medical College and Hospital, Dhaka, Bangladesh between January 2018 to June 2018, were included in the study.

Exclusion Criteria

Critically ill patient need ICU support, other malignancy e.g - multiple myeloma, leukaemia were excluded.

Analysis

- The data collected from the respondents were analyzed. After completion of data collection, to maintain consistency, the data were checked and edited manually and verified before tabulation.
- The sampling technique was purposive as per the selection criteria. All data had been analyzed in SPSS 16 version.
- Continuous variables had been expressed with number, mean and standard deviation (SD) while value with skewed deviation was expressed as IQR (Interquartile Range).

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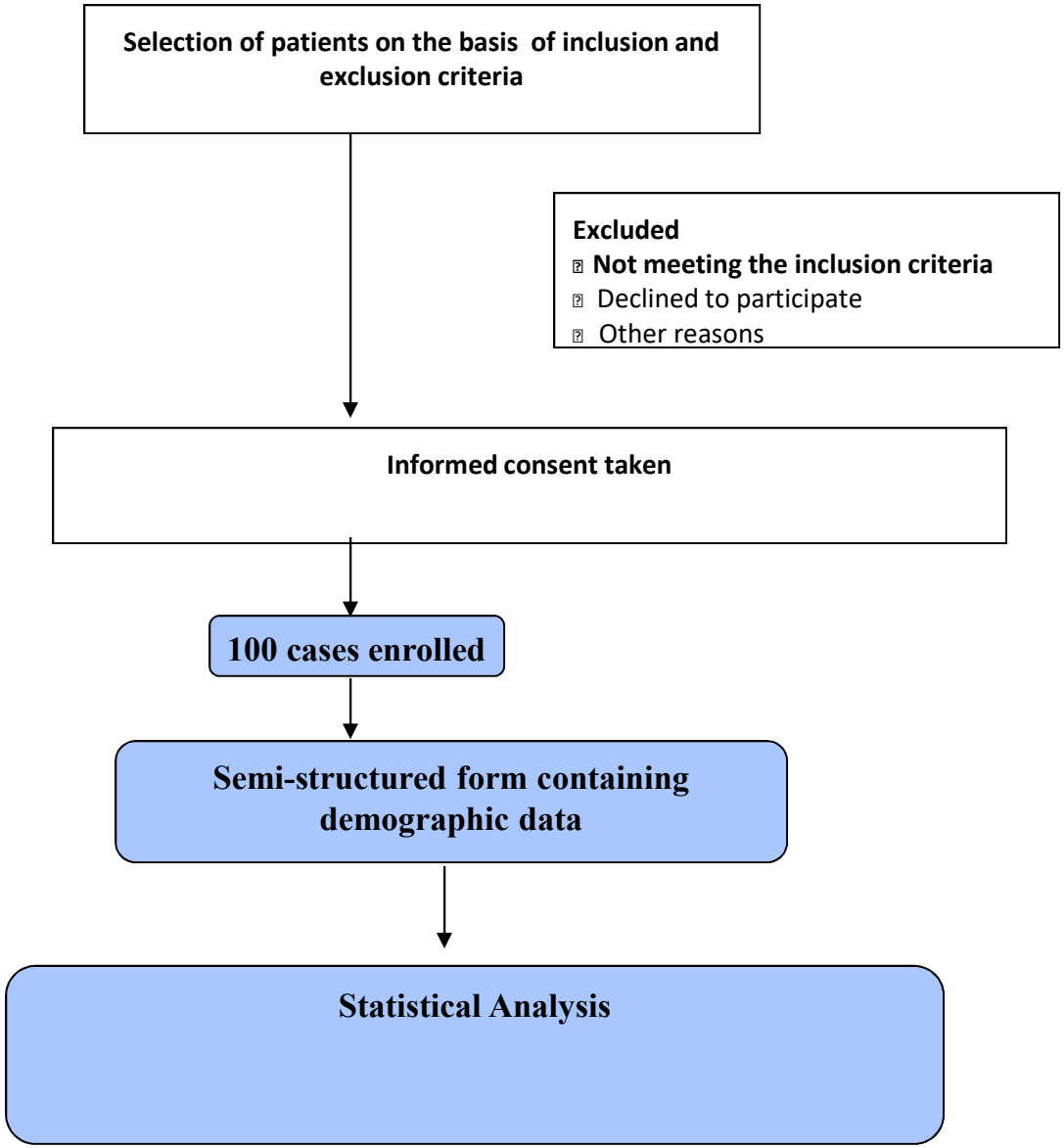
- The findings of the study were presented by frequency, percentage in tables and graphs.
- Means and standard deviation for continuous variables and frequency distribution for categorical variable were used to describe the characteristics of the total sample.


Selection of patients on the basis of inclusion and exclusion criteria
Excluded
Not meeting the inclusion criteria
Declined to participate
Other reasons
Informed consent taken
100 cases enrolled
Semi-structured form containing demographic data
Statistical Analysis

Results

Table I: Distribution of the Socio-demographic characteristic (n =100)

Characteristics	Group	Frequency	Percentage (%)
Age	18 -27	7	7
	28 — 37	10	10.0
	38 -47	26	26.0
	48 — 57	19	19.0
	58-67	27	27.0
	68 — 77	11	11.0
Sex	Male	59	59.0
	Female	41	41.0
Educational status	Illiterate	15	15.0
	Primary education	48	48.0
	Secondary education	30	30.0
	Higher secondary	6	6.0
	Graduation	1	1.0
	Service holder	17	17.0
Occupational	Farmer	16	16.0
status	Businessmen	22	22.0
	Housewife	33	33.0
	Others/Retired	12	12.0
Socio economic	Upper class	10	10.0
status	Middle class	59	59.0
	Lower class	31	31.0
Marital status	Married	94	94.0
	Unmarried	6	6.0
Life style	Sedentary life style	51	51.0
	Hard worker	49	49.0
Personal habit	Smoker	12	12.0
	Ex smoker	11	11.0
	Non smoker	9	9.0
	Bettlenut chewing	7	7.0
	None	61	61.0

Table II(A): Distribution of Solid malignant tumour among adult patients (n= 100)

characteristics	Frequency	Percentage (%)
Lung cancer	19	19.0
lymphoma	14	14.0
Colo-rectal cancer	7	7.0
Hepatocellular carcinoma (HCC)	7	7.0
Esophageal cancer	6	6.0
Gastric cancer	6	6.0
Lip and oral cavity cancer	4	4.0
Cholangiocarcinoma	3	3.0
Ca-pancreas	3	3.0
RCC	3	3.0
Germ cell tumour	2	2.0
Bone tumour	1	1.0
Thyroid cancer	1	1.0
Urinary bladder cancer	1	1.0

Characteristics	Group	Frequency	Percentage (%)
Symptoms	Chronic cough	17	89.47
	Haemoptysis	10	52.63
	Respiratory distress	09	47.37
	Weight loss	14	73.68
	Others	08	42.11
	Anaemia	05	26.31
	Pleural effusion	03	15.79
Signs	Mass lesion	09	47.37
	Collapse	01	5.3
	SVCO Syndrome	02	10.53
	None	04	21.05
Histopathological types	Adenocarcinoma	07	36.8
	Squamous cell carcinoma	06	31.6
	Small cell lung cancer	05	26.3
	Large undifferentiated lung cancer	1	5.3
Personal habit	Smoker	09	47.4
	Exsmoker	03	15.8
	Non smoker	06	31.6
	Bettle nut chewing	02	10.52
	None	01	5.3
Sex	Male	18	94.7
	Female	01	5.3
Age	38-47	01	5.3
	48-57	05	26.3
	58-67	08	42.1
	68-77	05	26.3

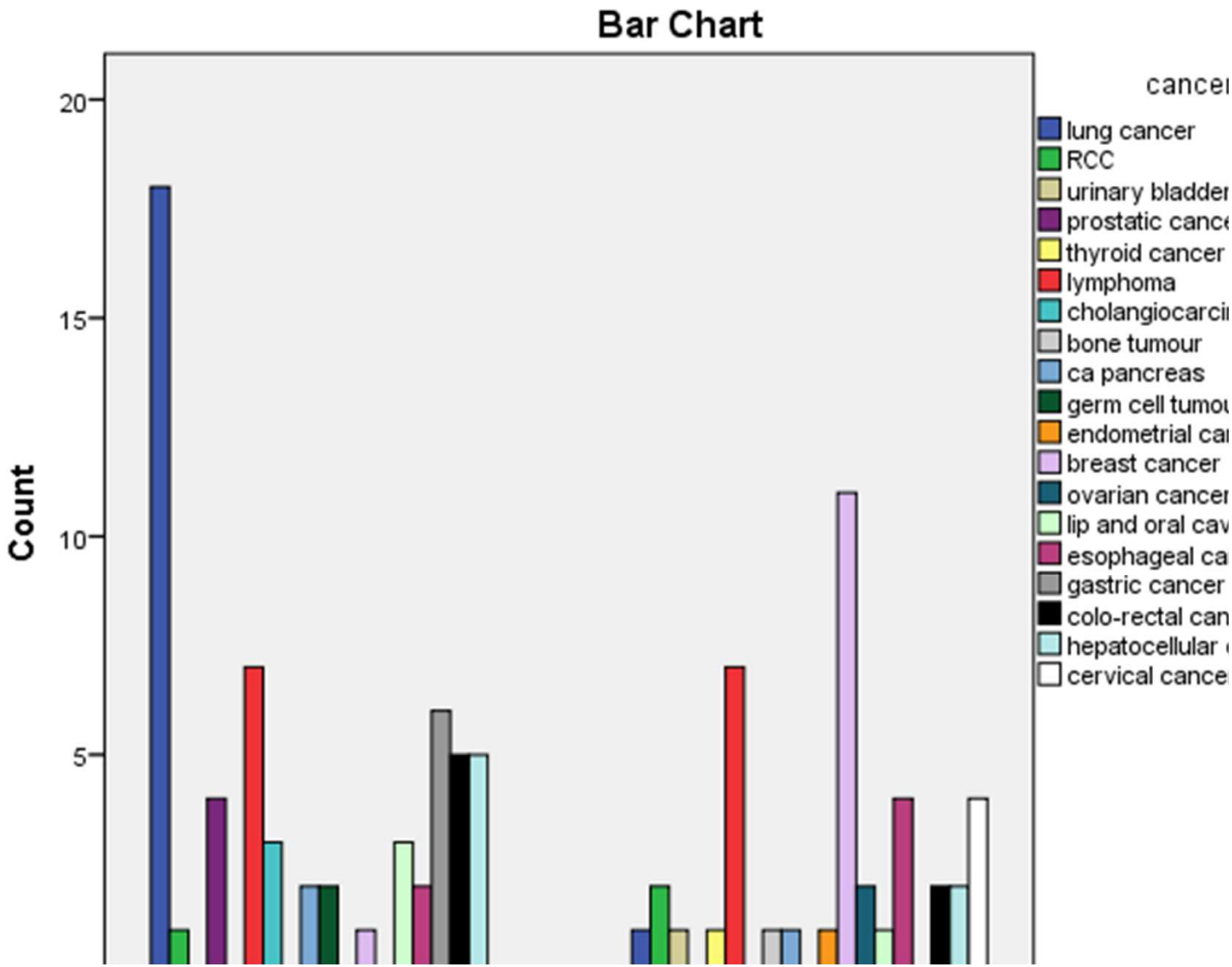
Table IV: Distribution of breast cancer among adult patients (n=12)

Characteristics	group	Frequency	Percentage(%)
	Breast lump	11	91.67
Symptoms	Mastalgia	02	16.67
	Nipple discharge	01	8.3
	Axillary swelling	08	66.67
	Others	05	41.67
	Anaemia	05	41.67
	Breast mass	11	91.67
Signs	Axillary lymphadenopathy	06	50
	Ulcerative lesion	02	16.67
	Others	01	8.3
Histopathalogical type	Infiltrating Ductal cell carcinoma (IDC)	12	100
	Pagets diseases and others	0	0
Sites of involvement	Right	07	58.33
	Left	05	41.67
Sex	Male	0	0
	Female	12	100
Age	18-27	01	8.3
	28-37	02	16.67
	38-47	05	41.67
	48-57	02	16.67
	58-67	02	16.67

Table X: Distribution of lymphoma among adult patients (n=14)

Characteristics	Groups	Frequency	Percentage (%)
Symptoms	Only swelling in the cervical region	03	21.43
	Multiple swelling in the whole body	10	71.43
	Fever	08	57.15
	Weight loss	06	42.86
	Night sweat	04	28.57
	Itching	04	28.57
Sign	Only cervical lymphadenopathy	03	21.43
	Generalized lymphadenopathy	10	71.43
	Hepatosplenomegaly	04	28.57
	Anaemia	02	14.28
	Others	01	7.41
Histopathological type	Non Hodgkin lymphoma	10	71.43
	Hodgkin lymphoma	04	28.57
Sex	Male	08	57.14
	Female	06	42.86
Age	18-27	02	14.28
	28-37	05	35.71
	38-47	04	28.57
	48-57	02	14.28
	58-67	01	7.14

Figure I: Distribution of Solid malignant tumour among adult male and female patients (n= 100)



Limitations

1. It was a single centre study

2. The study was conducted at a public hospital in Dhaka city and the respondents of the research work were self-selected purposively, it cannot be assumed that this sample could be representative of the entire population of Bangladesh.

3. It may differ in different socio-demographic or cultural situation.

4. large scale study is needed to find out exact clinical presentation

Home Message

- Lung cancer was the most common cancer in male and most of the patient related to smoking.
- Most common presentation was chronic cough 89.47% and adenocarcinoma (36.8%) was the most common histopathological sub type.
- Breast cancer was the most common cancer in female.
- Most common presentation was breast lump 91.67% and IDC was the most common histopathological sub type.
- Specific program and awareness for the solid malignant tumor patients as well as whole population may improve their life style as well as treatment and management care.

Conclusion

- The burden of malignancy is an increasing trend in whole world including developing countries like Bangladesh and it causes significant morbidity and mortality. Clinical survey on solid malignant tumour is not so common in our country.
- This small hospital based study describes the socio-demographic status of solid malignant tumour and clinicopathological presentation among adult patients and reflects that solid malignant tumour is not only a disease of the people of higher socio-economic class who usually lead sedentary life style but may affect relatively lower socio-economic class also

- Large scale community based study should be carried out to see the exact socio-demographic pattern in our country
- As some solid malignant tumour related to smoking, bettle nut chewing, HBV infection, HPV infection, other environtal factor, so social awareness regarding prevention, early diagnosis and treatment is the key to reduce the morbidity, mortality and burden of solid malignant tumour from the society.

Thank You