



A RETROSPECTIVE OBSERVATIONAL STUDY TO EVALUATE THE PATTERN OF CANCER CASES IN A TERTIARY HOSPITAL

Oncology

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ABSTRACT

INTRODUCTION- Cancer is the leading cause of morbidity and mortality in present day world. Epidemiological studies are important to find out the pattern of distribution of cancer cases in a population. These data will be helpful to measure disease burden, establish the etiopathogenesis of cancer cases in a geographical region and ascertaining the need for development of infrastructure for comprehensive cancer care. **AIMS & OBJECTIVE-** To assess the pattern of cancer cases in a tertiary hospital in Paschim Midnapore, West Bengal. **Material & Methods-** I reviewed the hospital records of all histology or cytology proved cancer cases attending the Radiotherapy OPD of Midnapore Medical College in between January 2018 to December 2019. **Results-** Total 513 cases were evaluated. M:F- 1:1.12. Overall commonest types were Head & neck cancer, Breast, Lung, Colorectal, Ovary, Sarcoma and others. Among male common types were Head & neck cancer(43%), Lung(22%) Stomach(5%) Genitourinary(5%). Among female the common types were Breast(37.2%) Head & neck cancer(11.1%) Lung(7.4%) Ovary(11%) Cervix (6%), Colorectal (6.6%). Commonest age group involved was 41-60 yrs in both male and female. **Conclusion-** Cancer is a significant health problem in this region. Extensive research is needed to achieve further information. Affordable health facilities should be made available for prevention, screening and multidisciplinary treatment of cancer.

KEYWORDS

Cancer, Head and neck cancer, Breast cancer, West Bengal.

INTRODUCTION

Cancer is the leading cause of death and morbidity among the non communicable diseases all over the world. Cancer incidence and mortality both are rising alarmingly across the globe. The reasons are various and complex. Increased life expectancy, changed lifestyle, addiction, rapid expansion of population are few of the reasons. The cancer incidence and pattern of distribution may vary in different geographical regions depending upon the genetic pattern, lifestyle, dietary habits, addiction and many other factors. This study was conducted at Midnapore Medical college which is the only Government run tertiary centre in Paschim midnapore in West Bengal. By studying the cancer records of the radiotherapy department at Midnapore medical college I tried to find out the pattern of cancer cases in this region.

AIMS- This retrospective study was conducted to assess the pattern of cancer cases in Paschim Medinipur district and adjoining area of West Bengal.

MATERIALS & METHODS- We studied the hospital OPD records of all histology or cytology proved cases of cancer registered in between January 2018 and December 2019. All data were compiled using Microsoft excel software. Calculations were done using percentage and proportion methods. Ethical clearance was taken from competent authority of the institution.

RESULT-

Total 513 cases were evaluated. Total number of male was 243 and female 270. (M:F= 1:1.12). The common types were Head & neck Cancer (20.07%), Breast(17%), Lung(10%), Colorectal(7%), Gallbladder (5%), Ovary(4%), Cervix (3%), Skin (3%), Testicular (2.15%) etc. Among male patients the common types of malignancy were Head & neck Cancer(43%), Lung (22%), Colorectal (11%), Stomach (4.5%), Genitourinary(4.1%), Hepatobiliary(2.4%), Musculoskeletal(2.5%), Lymphoma(2.5%). Among the female patients common subtypes were Breast(37.2%), Head & Neck Cancer (11.1%), Lung(7.4%), Ovary(11%), Cervix (6%), Colorectal (6.6%), Hepatobiliary(6.6%), Musculoskeletal (2.96%), Gestational trophoblastic neoplasia (2.59%) etc. Among Head & Neck cancers subtypes involved were – Oral cavity(44%), Larynx (42%), Oropharynx (35%), Maxillary Antrum (3.79%), External Ear (2.53%). Among Gynaecological malignancies different sites involved were – Ovary(42%), Cervix (28.8%), GTN (20%), Endometrium (8.8%). Different involved sites among Genito urinary malignancies were- Testis (52.3%), Kidney (19%), Penis (19%), Prostate (4.76%), Urinary Bladder(4.76%). Among Gastrointestinal malignancies commonest sites involved were- Colorectal(58.4%), Stomach (32%), Oesophagus(9.43%) etc. Among Hepato biliary group common sites involved were Gall Bladder (82%), Hepatic (7.14%), Pancreas (10%). [Table-1] Minimum and maximum age noted in male patients

are 6yrs and 85yrs. Among female patients minimum and maximum age were 12yrs and 80 yrs. Age wise distribution of male patients was as follows - <10 yrs- 0.41%, 10-40 yrs- 14.81%, 41-60 yrs- 48.55%, 61-80 yrs- 34.56%, >80yrs – 1.64%. Among female patients age wise distribution was as follows- <10 yrs – nil, 10-40 yrs- 27.40%, 41-60 yrs- 55.18%, 61-80 yrs- 15.92%, >80yrs – nil. Total 272 patients were addicted to different types of tobacco (chewable & non chewable). Total 250 (48.73%) patients received chemotherapy for neoadjuvant, adjuvant and palliative indications. Total 240 patients (47%) were referred to other Government institution for Radiation treatment, as there is no Radiotherapy machine available till date in our institution. Indications of radiation were Curative and Palliative.

DISCUSSION

Among the non communicable diseases Cancer is the leading cause of death and morbidity in present day world. According to IARC estimate there will be 18 million new cancer cases and 9.6 million cancer deaths in 2018. Both sex combined lung cancer is the most common cancer (11.6%) and common cause of cancer related death. It is closely followed by female breast cancer(11.6%), Prostate cancer (7.1%) and colorectal cancer (6.1%). Lung cancer and Prostate cancer are the commonest cancers in male. Among female Breast cancer is the most commonly diagnosed cancer and cause of cancer related death followed by colorectal cancer and lung cancer. Globocan data 2018 states the total number of new cases in India was 1157294. Number of cancer death was 784821 and prevalent cases 2258208. Common types of cancer considering both sexes are Breast (14%), Lip & Oral Cavity (10.4%), Cervix(8.4%), Lung(5.9%), Stomach (5%). New cancer cases identified in male of all ages are – Lip & Oral Cavity(16.1%), Lung (8.5%), Stomach(6.8%), Colorectum(6.4%), Oesophagus (5.9%). Among female of all ages new cases identified were of- Breast(27.7%), Cervix (16.5%), Ovary(6.2%), Lip & Oral cavity(4.8%), Colorectum(3.4%), others (41.5%).

Midnapore Medical College is a tertiary level hospital and the catchment area includes the whole of Paschim Midnapore, Purbu Medinipur, Jhargram, parts of Purulia, Hoogli, adjacent areas of Orissa and Jharkhand. Total population of this area is approximately 20625892. In this study we evaluated the OPD records of all histology or cytology proved cases of malignancy attending the Radiotherapy Department of Midnapore Medical College between January 2018 and December 2019. Female patients outnumbered the male patients. Overall considering both sexes the five commonest types were cancer of Head & neck, Breast, Lung, Colorectal, Gallbladder. Among HNSCC the commonest subsites were Oral cavity (31%), Larynx(31%), Oropharynx(21%) and others. 93% of these cases were tobacco associated. 47% cases used chewable tobacco and 67% were smokers. Among male commonest types were HNSCC, Lung, Colorectal, stomach. Among female commonest types were Breast, HNSCC, Ovary, Lung, cervix. 48.7% cases were treated with

chemotherapy at the daycare facility of Radiotherapy department. 47% cases required Radiotherapy for which they were referred to other centres. Radiotherapy machine is yet to be installed.

This is the first study report of cancer cases from this region. There were many constraints observed in this study, like poor referral system, lack of awareness, inadequate infrastructure (both diagnostic and therapeutic). Tobacco related cancers are the commonest type of malignancy in this region in both sexes. Lack of awareness, poor socio economic status, lack of education are reasons behind this. Steps should be taken by competent authority to improve the public awareness regarding ill effects of tobacco consumption. Cancer of cervix cases were reported to be few in this study population. Probably improper referral system is the reason behind this finding.

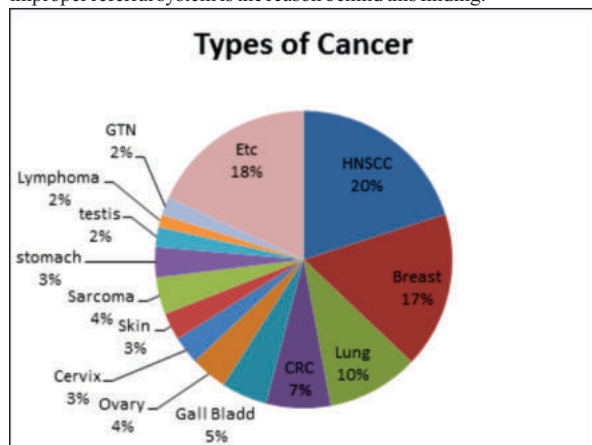


Figure 1

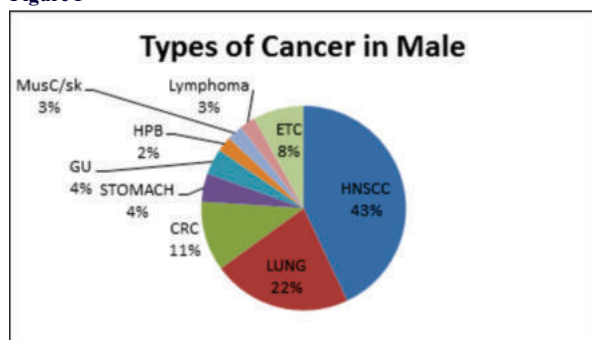


Figure 2

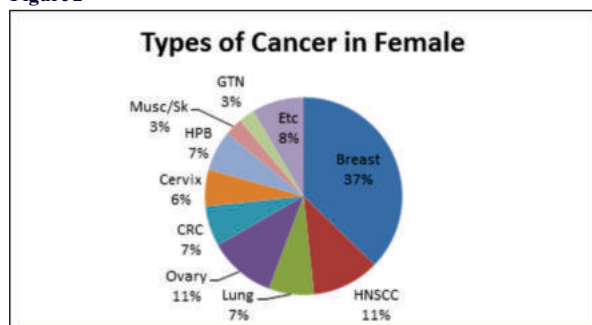


Figure 3

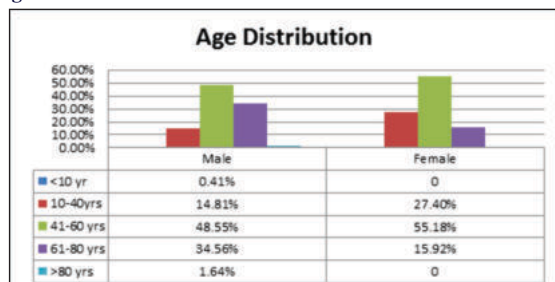


Figure 4

System wise distribution : (Table- 1)

HNSCC	Oral Cavity (44%)	Oropharynx (35%)	Larynx (42%)	Maxillary antrum (3.79%)	Ear (2.53%)
Gynaecological	Ovary (42%)	Cervix (28%)	Endometrium (8.8%)	GTN (20%)	
Genito-urinary	Testis (52.3%)	Penis (19%)	Kidney (19%)	Urinary Bladder (4.76%)	Prostate (4.76%)
Gastro intestinal	Colorectal (58.49)	Stomach (32%)	Oesophagus (9.43%)		
HepatoBiliary & Pancreas	Gall Bladder (82%)	Hepatic (7.14%)	Pancreas (10%)		

CONCLUSION-

This study is the first of its kind from this Institution. Incidence of cancer cases is significantly high in this region. Tobacco related cancers are the most common type identified in both the sexes. Cancer of Head and Neck region is the commonest type of cancer and Oral Cavity is the commonest subsite. Breast cancer is the commonest cancer among female patients. This study is just the preliminary report. More extensive population based epidemiological study is needed to gain insight in the etiology & pathogenesis of cancer cases in this region. Measures should be taken to improve awareness among common people as well as health workers. Screening programme for early detection of cancer and other preventive measures should be implemented. Infrastructure should be built to provide comprehensive cancer treatment to the people of this region.

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