**Pathology**

# HISTOPATHOLOGICAL DISTRIBUTION OF MALIGNANT CASES IN A TERTIARY CARE CENTRE

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| **Arti Gupta*** | M.D. (Pathology), Associate Professor, Department of Pathology, GR Medical College, Gwalior, Madhya Pradesh, India.*Corresponding Author |
| **Pankaj Kumar Gupta** | D.M. (Neurology), Consultant Neurologist, Arogyadham hospital Gwalior, (M.P.) India |

**ABSTRACT** **Introduction-** Malignancy/cancer is a dreadful condition affecting not only physical but also mental wellbeing of a person. Surgeries associated with its treatment are also leads to morbidity. So apart from treatment we need to find out the factors which are precipitating for any cancer.I tried to study the distribution of malignant cases received in histopathology lab of a tertiary care centre in two and a half month period with respect to its frequency, site,age gender and important histological types. **Results-** In this study, we have seen 118 cases of malignancy in histopathology section in 2 and half months period. Ratio of malignancy in male and female is 0.9 that is malignancy rate is slightly more in females. The reason is increasing incidence of malignancy of uterine cervix and breast.Out of 62 cases of malignancy in females ,24 is in cervix only and 11 is in breast, which together constitute more than half of all cases in females. Among males most common malignancy was oral cavity squamous cell carcinoma, it constitute nearly half of all malignant cases in males, which is 27 out of 56 cases. Two cases of laryngeal carcinoma, and 4 cases of urinary bladder carcinoma are seen exclusively in males, Probably because all the three cancers i.e. oral cavity, larynx and urinary bladder are associated with smoking and tobacco chewing .Hence If a campaign is started to Prohibit smoking and tobacco chewing and more important if there production and selling can be banned by government, the incidence of malignancy can become nearly half in males. **Conclusion -**This study provides a framework for assessing the status and trends of cancer in India. It shall guide for action to strengthen efforts to improve cancer prevention and control to reduce morbidity and mortality.

## INTRODUCTION:

Malignancy/cancer is a dreadful condition affecting not only physical but also mental wellbeing of a person. Surgeries associated with its treatment are also leads to morbidity. This paper I am writing because while grossing a specimen like hemiglosectomy, hemimandibulectomy bearing tooth, specimen of bone, intestine, and many other specimens I felt very bad about the situation of patients. Also increasing number of malignancy cases, many are not cured even after surgery, chemotherapy or radiotherapy. Aim of treatment should be not only to save the life of patient, but also to improve the quality of life of the patients and their care taker. I know it is very difficult to achieve, even after the best treatment by an expert clinician. So apart from treatment we need to find out the factors which are precipitating for any cancer so that it can be stopped even before it develop. In my opinion majority of oral and GIT cancers are might be due to some faulty dietary or lifestyle habits. If in any person we can successfully find the precipitating habits for any malignant or non malignant disease or symptom and he/she stops this habit and use some healers like milk and turmeric in his or her diet with homemade food, plenty of fruits etc, the disease can be stopped progressing. So with so many thoughts I tried to study the distribution of malignant cases received in histopathology lab of a tertiary care centre in two and a half month period with respect to its frequency, site, age gender and important histological types.

## MATERIALAND METHODS:

It is a retrograde study of 118 cases which were found malignant after grossing and reporting in two and a half month period.

**Inclusion criteria-** All the cases which were reported as malignant with suggestion of invasion.

**Exclusion criteria -** All the biopsy with doubtful invasion to stroma, all biopsy which are inadequate for reporting and all benign tumors are excluded.

After receiving the specimen, formalin is changed by 10% formalin which is routinely used in our department and if the specimen is large, nics are given and kept for overnight fixation next day morning we do grossing and use to take sections as per CAP protocol. Bony tissues were sectioned after proper decalcification. Routine tissue processing was done and proper sections were taken .After haematoxylin and eosin staining slides were reported.

## RESULTS:

In two and a half month period we reported 118 cases of malignancies in histopathology includes

| S. No. | Organs Affected | Total number of cases (118) | Males (56) | Females (62) |
|---|---|---|---|---|
| 1 | Oral Cavity | 34 | 27 | 07 |
| 2 | Brain | 15 | 05 | 10 |
| 3 | Larynx | 02 | 02 | 00 |
| 4 | Salivary Gland | 01 | 00 | 01 |
| 5 | Skin | 09 | 06 | 03 |
| 6 | Bone and soft tissue | 04 | 03 | 01 |
| 7 | Gall Bladder | 02 | 00 | 02 |
| 8 | Gastrointestinal tract (GIT) | 05 | 02 | 03 |
| 9 | Lymph node | 01 | 01 | 00 |
| 10 | Breast | 12 | 01 | 11 |
| 11 | Cervix | 24 | -- | 24 |
| 12 | Prostate | 04 | 04 | -- |
| 13 | Urinary Bladder | 04 | 04 | 00 |
| 14 | Penis | 01 | 01 | -- |

| No of cases | Organs (118) | 0-10 YEARS (02) | 11-20 (04) | 21-30 (02) | 31-40 (23) | 41-50 (27) | 51-60 (28) | 61-70 (22) | 71-80 (08) | 81-90 (02) |
|---|---|---|---|---|---|---|---|---|---|---|
| 34 | Oral cavity | - | - | - | 10 | 07 | 08 | 05 | 02 | 02 |
| 15 | Brain | -- | 02 | 01 | 04 | 05 | 02 | 01 | - | - |
| 02 | Larynx | - | - | -- | - | - | 01 | - | 01 | - |
| 01 | Salivary gland | - | - | - | 01 | - | - | - | - | - |
| 09 | Skin | - | - | 01 | - | 02 | 01 | 03 | 02 | - |
| 04 | Bone and soft tissue | 01 | 02 | - | - | - | - | 01 | - | - |
| 02 | Gall Bladder | - | - | - | - | 01 | 01 | - | - | - |
| 05 | GIT | - | - | - | 01 | 01 | 01 | 02 | - | - |
| 01 | Lymph node | 01 | - | - | - | - | - | - | - | - |
| 12 | Breast | - | - | - | 02 | 01 | 07 | 02 | - | - |
| 24 | Cervix | - | - | - | 05 | 09 | 05 | 05 | - | - |
| 04 | Prostate | - | - | - | - | - | -- | 02 | 02 | - |

| 04 | Urinary bladder | - | - | - | - | - | 02 | 01 | 01 | - |
|----|-----------------|---|---|---|---|---|----|----|----|---|
| 01 | Penis | - | - | - | - | 01 | - | - | - | - |

## DISCUSSION:

In this study, we have seen 118 cases of malignancy in histopathology section in 2 and half months period. Ratio of malignancy in male and female is 0.9 that is malignancy rate is slightly more in females. The reason is increasing incidence of malignancy of uterine cervix and breast. Out of 62 cases of malignancy in females ,24 is in cervix only and 11 is in breast, which together constitute more than half of all cases in females. One case of breast cancer (Infiltrating ductal carcinoma, No special type) is seen in 60 year male. Other cancers common in females are oral cavity squamous cell carcinoma and large intestine adenocarcinoma .In intestinal malignancy, in our study all adenocarcinoma cases (03 cases) are seen in females, we found two cases of high grade Gastro Intestinal Stromal Tumours, and both were males. Both the gall bladder malignancy cases in our study are seen in females. Brain malignancies are more in females as compared to males with a ratio of 1:2 male to female ratio. Among males most common malignancy was oral cavity squamous cell carcinoma, it constitute nearly half of all malignant cases in males, which is 27 out of 56 cases. Two cases of laryngeal carcinoma ,and 4 cases of urinary bladder carcinoma are seen exclusively in males, Probably because all the three cancers i.e. oral cavity, larynx and urinary bladder are associated with smoking and tobacco chewing .Hence If a campaign is started to Prohibit smoking and tobacco chewing and more important if there production and selling can be banned by government, the incidence of malignancy can become nearly half in males and also many cases of oral squamous cell carcinoma can be prevented in females. This will result in reduced morbidity and mortality to individuals as well as reduced financial stress to the family of affected individuals. In females 07 cases out of 62 cases was of oral malignancy. Among age category most common age group affected was 51-60 years closely followed by 41-50, 31-40 and 61-70 years respectively. Maximum cases of breast carcinoma found in age group 51-60 years, Prostate malignancy are seen between 61-80 years. Oral cancer are seen in age group 31-40 years, followed by 51-60 years and 41-50 years respectively, This shows that oral cancers can be due to faulty dietary habits and these habits are common between age of 21-40 years, So it is important to give school education to kids from class 6th till graduation about healthy dietary and lifestyle habits like stop PICA (eating nonedible things), stop drinking very hot tea or soup, Proper time management, avoid stress etc. Prashant et.al.showed that,the leading sites of cancer in the NE region were nasopharynx, hypopharynx, esophagus, stomach, liver, gallbladder, larynx, lung, breast, and cervix uteri. The common 5 leading sites are breast, lung, mouth, cervix uteri, and tongue similar results are seen in our study, Lung cancer cases are not seen in our study because it is usually diagnosed by Guided FNAC while in our study those cases are included which were diagnosed by histopathology. Trends in cancer incidence rate showed an increase in all sites of cancer in both sexes. [1]

Our study shows the common cancer sites and patterns in various age and gender category, Results of this study will help in assessing the status and trends of cancer in India. This will assist local and national level stakeholders to implement public health action to control cancer. Lung cancer and oral/mouth cancer were the most common cancers among males in the Indian subcontinent [2]. Similar to our study with about half of cases in males were of oral cancer. There are similarities in the cancer incidence pattern with the Southeast Asian region [3]. Overall, these findings on patterns of cancer were similar to previously published reports under NCRP [4]. Cancer of the breast (19 PBCRs) and cervix uteri (7 PBCRs) were the most common cancers in women. A steady increase in breast cancer in most of the PBCRs including newer PBCRs, poses a great health challenge to women in India [5]. Presently, breast cancer and cervix uteri are the leading sites of cancer among women in India, posing an important public health problem that needs important input from various health and other agencies to tackle [6]. A multidisciplinary approach to breast cancer, including awareness programs, preventive measures, screening programs for early detection, and availability of treatment facilities, are vital for reducing both incidence and mortality of cancer in Indian women [7].

There are cancers of several anatomic sites known to be associated with the use of tobacco [8]. Based on PBCR data, almost one third of the cancers were known to be associated with the use of tobacco in India. India state-level disease burden initiative cancer collaborators estimated that tobacco use was the highest contributing risk factor for cancer in India [9]. Approximately 70% of cancers in India were potentially preventable through modifiable risk factors [10].

NCI's Surveillance, Epidemiology, and End Results (SEER) Program collects and publishes cancer incidence and survival data from population-based cancer registries that cover approximately 35% of the US population. Cancer is now widely recognized as a global problem that unfortunately lacks a global solution. The latest United Nations high-level meeting on noncommunicable diseases (NCDs) exemplified this conundrum [11].

## CONCLUSION:

This study provides a framework for assessing the status and trends of cancer in India. It shall guide for action to strengthen efforts to improve cancer prevention and control to reduce morbidity and mortality.

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