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Spectrum of Malignancies at a Tertiary Care Level Teaching Hospital in Ujjain

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Abstract: ***This study was undertaken to assess the feasibility of early feeding in patients that have undergone emergency gastrointestinal surgery. The study was done prospectively over seventy (70) patients that underwent emergency bowel resection and /or anastomosis from JUNE 2019 to MAY2020 at our institute.***

Keywords: emergency gastrointestinal surgery

1. Introduction

Malignancies constitute the foremost public health problem in the world, specially keeping in view the aging population. The last UICC, World Cancer Congress forecasted that by the year 2020, more than 16 million new cancer cases and 10 million cancer deaths are expected annually. The Cancer burden is growing and has become one of the major causes of mortality worldwide, especially in developing countries like India. Study of magnitude and pattern of cancer is the first step in determining various causes and to plan and assess preventive measures.

Spectrum of cancer in a region depends on various environmental, genetic, social and dietary factors. A lack of basic health care, lack of stable population, lack of trained personnel, and poor follow up creates problems in collecting and analyzing cancer registry data. Cancer registration is one such mechanism that collects data, which is helpful in assessing the magnitude and common sites of cancer in a region. The ICMR started a NCRP in year 1982, to collect data and cancer trends/ patterns in India. There are 26 PBCR in India which are currently functioning under NCRP. Predominant cancers in India include, Cancers of the Oral Cavity, Lung, Esophagus, Stomach, Colon, Rectum, Cervix, Ovary, Breast, Skin, etc.

In India, there should be a reduction in substance abuse, primarily tobacco in any form, for preventing cancers. Many patients present to the hospitals at a very late stage due to lack of awareness and a taboo related to occurrence of cancers in our society. The present study is carried out to put the cancer profile from this region in respect to modifiable and non – modifiable risk factors. This hospital is a tertiary referral centre, with various super specialty services and gets patients from neighboring rural area for proper management and follow-up. In above context, it is of prime importance to categorize the spectrum of cancer, treat accordingly, and evaluate various risk factors and treatment modalities.

2. Materials and Methods

A prospective observational study is being conducted in our institute. A proforma is used to collect data such as age, sex, place of residence, type of cancers and treatment given. To maintain the authenticity and reliability of data obtained, only those cases were recorded, which had microscopic verification of diagnosis. Overall site frequency and sex pattern are being recorded. Overall site, frequency, year, age and sex pattern will be recorded. Classification of various malignant tumors will be done according to the International Classification of Disease coding system derived by WHO

Inclusion Criteria

- All patients admitted in the hospital.
- Only cases which will have microscopic verification of diagnosis.

Exclusion Criteria

- All those Cases without a conclusive diagnosis of malignancies.

3. Observation

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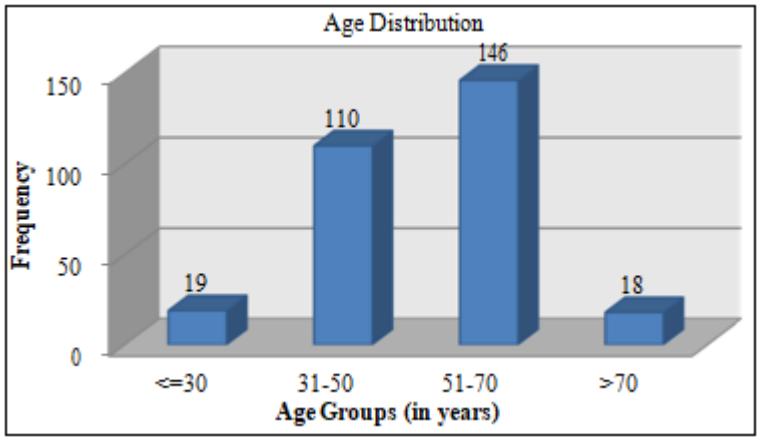
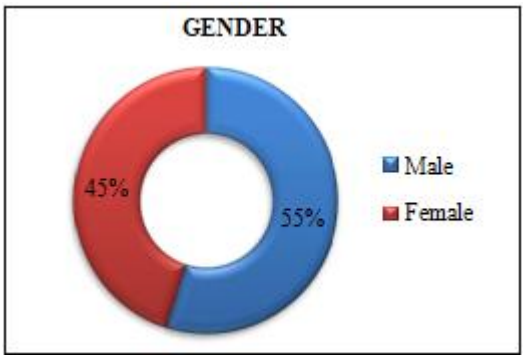
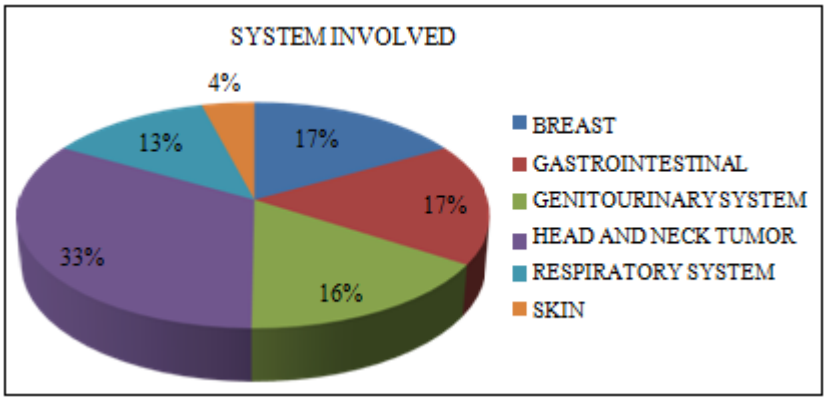
Bar Graph Showing Distribution according to Age



Pie Diagram Showing Gender Distribution



Pie Diagram Showing System Involved



Bar Graph Showing Different Types of Cancer

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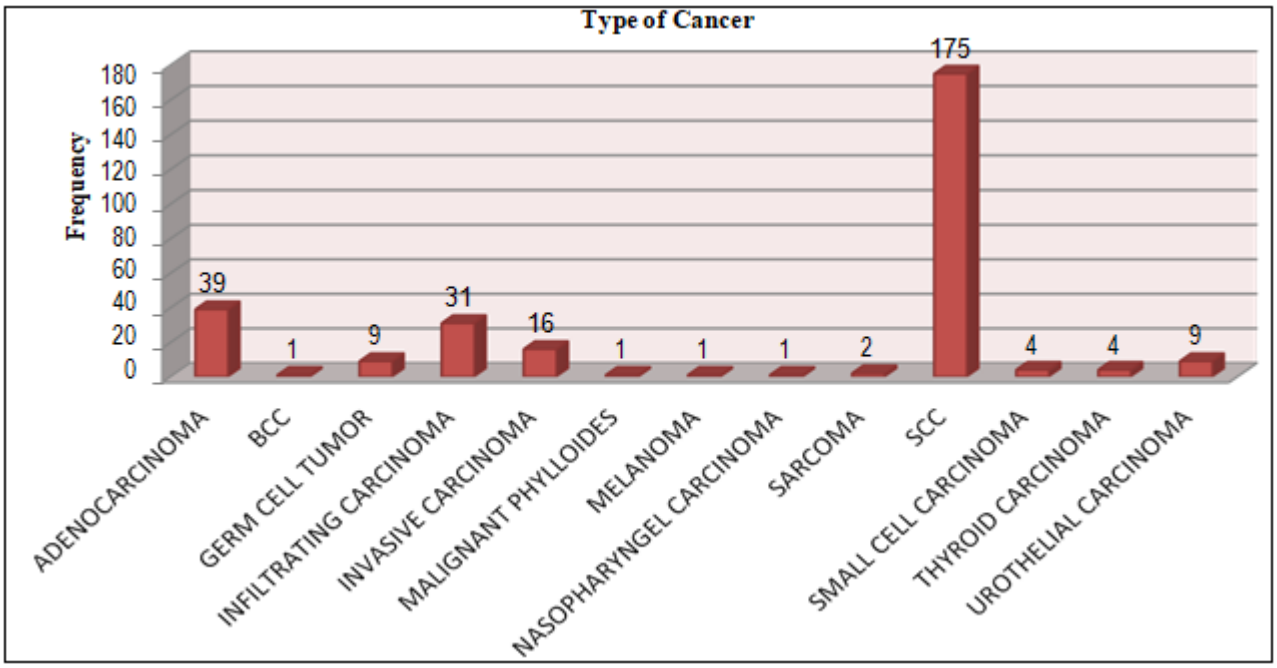
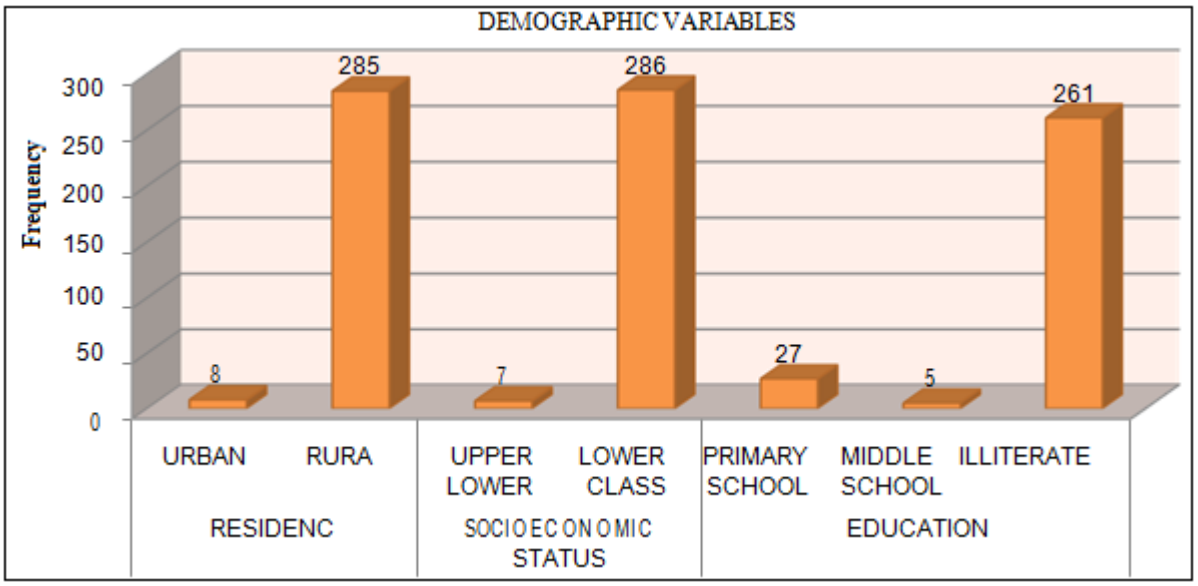
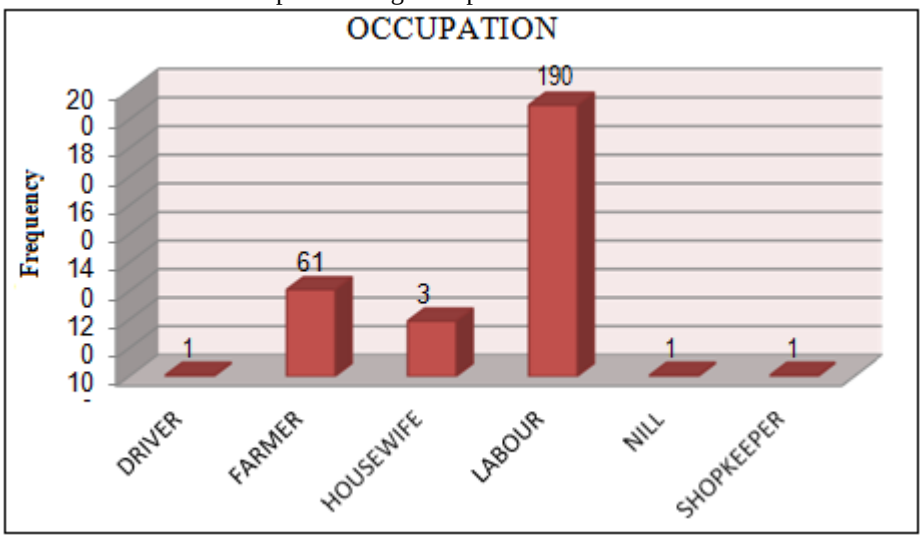


Bar Graph Showing Demographic Variables



Bar Graph Showing Occupation and Cancer Cases



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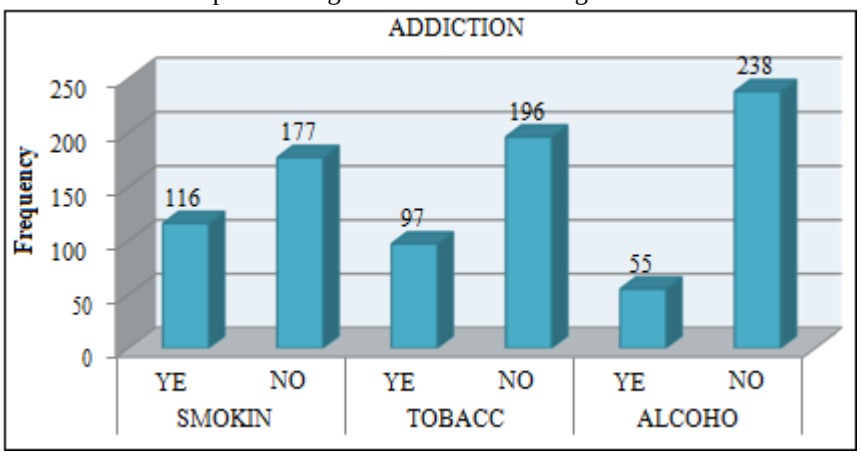
Bar Graph Showing Distribution according to Addiction



4. Discussion

The present study was carried out at a tertiary care level teaching hospital, with study population that mainly comes from rural areas near Ujjain. The present study aims at putting the cancer profile from this region in proper perspective and to study magnitude, profile, epidemiological aspects and various risk factors associated with these cases. Total 293 cases were included in the study. Maximum numbers of patients were found in the age group 51-70 years (49.8%). These findings are comparable with study carried out by Jaison et al, in which maximum patients were found in the age group 41-70 years. Lung and prostate cancers are most prominent cancer in men having age ≥ 60 years while in women breast is the leading site followed by cervix and ovary in the same age group. The present study shows a male preponderance (55%). This finding is comparable with study carried out by Mehrotra et al, 2008, which also reported a male preponderance. On the contrary Jayant D Deshpande et al, 2012, reported a female preponderance. In the present study, Head and neck cancer was most common cancer and most common histological type was squamous cell carcinoma in males. There was found an association between tobacco chewing, smoking and alcohol in these cases.

Ninety per cent of oral cancers are due to preventable causes, which include smoking, use of smokeless tobacco (SLT) products and excessive alcohol consumption. SLT products are either chewed or snuffed orally or nasally, or applied over teeth and gums, or gargled or drunk. The chewed tobacco products are betel quid with tobacco and pan masala with zarda and gutkha. Betel nut is a known carcinogen, associated with a higher risk for oral cancer either with or without tobacco. Smoking of cigarettes particularly beedi and chewing tobacco (smokeless use) is a common practice in India. Public awareness regarding the signs, symptoms and risk factors among the younger group patients, along with lack of knowledge for early detection by some health-care providers are believed to be responsible for this diagnostic delay and treatment initiation. Screening programs tailor-made for individuals at high risk of developing oral cancer including tobacco users are required for early and accurate diagnosis. Breast carcinoma was most common type of cancer among females in this study. In contrast, study by Jayant D Deshpande et al, reported cervical carcinoma was most common in females. Detection of early signs and symptoms by self-examination appears to be the most cost effective, convenient and even medically feasible method of handling the situation. The high occurrence of breast cancer among urban women can be concurrent with numerous factors, including having late sex, having fewer children, and breastfeeding them for a shorter period compared with rural women. This ultimately increases their exposure to estrogens and thus subsequently, upsurge the risk of developing breast cancer. A family history of breast cancer, never breastfeeding, nulli-parity, age at menarche (<13 years), age at menopause >50 years, first pregnancy age >25 years, BMI more than 25, post-menopausal status and never married are risk factors of breast cancer for women in India. Second most common cancer in females was carcinoma cervix. Most of the females had an early age at menarche, early age at first child birth and multiparity. Most malignancies occurred between 5th and 7th decade. Female reproductive system was the commonest organ system to be affected. Breast was the most common site for malignancy followed by cervix. Cervical malignancies in our study group had a mean age of 52 years. Squamous cell carcinoma was the most prevalent histopathological type followed by adenocarcinoma and neuroendocrine carcinomas. Majority of the patients included in the study were illiterate and belonged to lower socioeconomic group according to Modified Kuppuswamy classification. Most of them were daily wage laborers followed by farmers. This group of people are associated with higher incidence of substance abuse in form of smoking, tobacco chewing and alcohol. Public health studies in India have demonstrated that educational level in India is correlated with other measures of SES, including occupation, housing, and social status. Education is also associated with cognitive function and health literacy, which can affect health-seeking behaviors. The study results demonstrate a substantial association between low educational status and advanced stage cancer at diagnosis for patients with breast, cervical and oral cavity cancers.

5. Conclusion

We can conclude from the present study that most of the cancers occur in elderly people. The most common cancer among male is oral cancer which can be associated with their use of smokeless tobacco, smoking and alcohol

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consumption.

Among females the most common cancer was breast cancer followed by cervical cancer which can be associated with early age at marriage, early menarche, late menopause, multiple child birth, poor sexual hygiene and lastly but most importantly lack of awareness among the population. Most of the patients in this study belong to lower socio economic groups which can be associated with poor literacy level, lack of awareness, poor hygiene, and prevalence of quacks among the population. Awareness should be created among the rural population by proper means and channels. Various type of cancers, their associated risk factors; modifiable as well as non-modifiable. Symptoms related to various types of cancer must be explained to them. They must be told about various screening programmes running presently in our country against cancer. Persons such as anganwadi workers, social workers, ASHA, ANM, and doctors and paramedic staff all must be indulged in this awareness. Everything should be explained in a language that they can understand. Any query by them must be listened and solved. Cancer patients >/= 60 years deserve a special attention as a target group for efforts along the cancer control spectrum of early detection, diagnosis, pre-treatment evaluation, treatment and care. Oral cancer is of significant public health importance to India. It is diagnosed at later stages which result in low treatment outcomes and considerable costs to the patients whom typically cannot afford this type of treatment. Secondly, rural areas in middle-and low-income countries also have inadequate access to trained providers and limited health services. As a result, delay has also been largely associated with advanced stages of oral cancer. It is imperative that-be introduced in high-risk populations such as those found in India. Mouth self-examination could further reduce the cost of the screening and increase awareness in high-risk communities in India. Countries in high-risk regions should formulate and implement policies stringently for the cessation of smokeless tobacco in addition to smoking. The case of banning gutkha in most of the Indian provinces/states is one of the best examples of such an application. Indian women need to be aware of both modifiable and non-modifiable risk factors for breast cancer to adopt appropriate practices for prevention. Training on the latest evidence regarding breast cancer risk factors should be offered to healthcare providers and community workers to raise their cancer literacy so they can then transmit this knowledge to other sections of the society. Self examination of the breast must be taught to every woman and they should be made aware about its importance. Improvement in the living standard of women has resulted in a reduction in the incidence of cervical cancer. Early age at first intercourse, multiple sexual partners, poor sexual hygiene, repeated child birth etc. are some of the reproductive risk factors for cervical cancer. Regular cervical cytology examination (Pap smear) by all women who have initiated sexual activity can prevent the occurrence of cervical cancer. Launching community based low intensity cervical screening in combination with awareness campaign and monitoring system should be the priority of the cervical cancer control program.

The consumption of cigarettes/ tobacco is increasing rapidly in both sexes worldwide. This would lead to large increases in the incidence of lung cancer. Prevention of cancers through reduction of tobacco use should be an important strategy of National cancer Control Programme of India. Organized Cancer screening facilities should also be initiated so that leading cancer sites like breast, Cervix and oral can be detected at early stages or at pre-cancerous stage. For prevention of Cancer, Cancer Education is an important strategy for people to understand the risk factor associated with cancer and further to recognize early signs of cancer by screening and seek prompt medical attention for symptoms.

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