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Original Research Article

A Clinicopathological Study of Stomach Carcinoma in a Tertiary Care Hospital

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Abstract

Introduction: Cancer is the biggest problem facing today's society. Statistics on fatalities indicate that this is the second most common condition worldwide, after cardiovascular problems. Globally, stomach cancer ranks as the second leading cause of death. People in different parts of the world and in different nations are affected by stomach cancer in different ways. In India, it remains the fifth most common cancer in men and the seventh most common cancer in women. Conversely, India is recognized as the region with the lowest incidence of stomach cancer due to its lower incidence compared to the rest of the world.

Material and Methods: Type of study: Prospective observational study.

Place of study: Department of surgery of tertiary care hospital.

Sample size: A total of 100 individuals were identified as having stomach cancer and were monitored.

Results: Maximum no. of had Abdominal pain (96) Followed by Nausea (89) and Vomiting (88). After that 83 patients were having Anorexia while 71 patients had Weight loss followed by Melena, Mass and Dysphagia.

Conclusion: According to our research, stomach cancer risk rises with age, particularly beyond the age of forty. Eliminating stomach cramping agents like alcohol, drugs, tobacco, and cigarettes lowers the risk of cancer and upset stomach. Extra caution should be used when managing weight gain, and testing for abdominal discomfort may be an important diagnostic tool in the future.

Key words: Gastric Carcinoma, abdominal pain, life style and Tertiary Care.

Introduction

Cancer is the biggest problem facing today's society. Statistics on fatalities indicate that this is the second most common condition worldwide, after cardiovascular problems. Globally, stomach cancer ranks as the second leading cause of death. People in different parts of the world and in different nations are affected by stomach cancer in different ways. In India, it remains the fifth most common cancer in men and the seventh most common cancer in women. Nonetheless, India is regarded as the region with the lowest incidence of stomach cancer due to its lower incidence of the disease than the global average. The incidence of stomach cancer varies substantially among India's different regions due to cultural and dietary variances. The mean age-adjusted rate (AAR) of stomach cancer in India's metropolitan registries ranged from 3.0 to 13.2, with the Chennai registry having the highest rate, according to the National Cancer Registry Programme (NCRP) 2010. The northeastern region of India, however, was found to have a significantly higher incidence. With an AAR of 46.3 to 70.2, Mizoram, a state in northeastern India, now holds the top spot among Indian states and the sixth position globally. [1] Cancer is the second leading cause of death, after heart attacks. The most common type of cancer and the second leading cause of cancer-related death is stomach cancer. There are regional variations in the rate of rise. In India, cancer ranks seventh among women and fifth among men in terms of frequency of occurrence. Central and South America, as well as Japan, Korea, and China, have significant infection rates. In the globe, India has the lowest rate of stomach cancer. [2] Because of the diverse cultures, lifestyles, and dietary customs across India, even the incidence rate varies. 2010 saw the implementation of the National Cancer Registry

Program in India's metropolitan registries. It was shown that the range of the average age adjusted rate (AAR) for stomach cancer was 3.0 to 13.2. The register in Chennai was at its highest point ever. Based on population-based cancer registries conducted in India between 2006 and 2008, stomach cancer ranks among the top five malignancies for men in the majority of major cities, including Bangalore, Chennai, Dibrugarh, Kamrup Urban, Kollam, Dindigul, Aizawl, Mizoram, and Sikkim; among women, it ranks third in Barshi, Chennai, Mizoram, and Sikkim. [3] In Nagpur, stomach cancer cases were recorded concurrently at a male-to-female ratio of 1.7:1. Blood type A carriers are more likely to get stomach cancer. Another epidemiologic issue to take into account is moving from a high-risk area to a low-risk area. The most hazardous items to consume are spicy foods, salty cucumbers, and excessive amounts of tea. [4] It has been demonstrated that smoking poses a significant risk for stomach cancer. Eat more fruits and vegetables to lower the risk. One infection that has been connected to stomach cancer is H. Pylori. This virus contributes to stomach cancer development. The current results are based on an investigation of the occurrence of stomach cancer in the districts of Madhya Pradesh and Andhra Pradesh surrounding the Vidarbha region. Investigating the role of etiologic mutations in stomach cancer, including nutrition and other local variables, was the aim of this study. [5]

Aim and Objectives:

1. To determine the variables that increase the risk of stomach cancer.
2. Determine the symptoms of people who have been diagnosed with stomach cancer.
3. Surgical results should be compared to histo-logical reports.

Material and Methods:

Type of study: Prospective observational study.

Place of study: Department of surgery of tertiary care hospital.

Sample size: A total of 107 individuals were identified as having stomach cancer and were monitored.

Inclusion Criteria: A gathering of information on the patient's age and gender preceded the diagnostic process. A patient history was constructed and documented, including information on symptoms and hemoglobin content, as well as lifestyle-related activities, dietary habits, family history, and history of peptic ulcer complaints. The area of the affected abdomen was also mentioned.

Exclusion criteria: All participants with additional cancers or who were unwilling to participate in the trial were eliminated.

Results:

Table 1: Symptoms in patients with stomach cancer are represented by this symbol.

Presenting symptoms	No. of Patients	% of patients
Weight loss	71	71
Abdominal pain	96	96
Anorexia	83	83
Dysphagia	8	8
Nausea	89	89
Melena	17	17
Mass	15	15
Vomiting	88	88

Maximum no. of had Abdominal pain (96) Followed by Nausea (89) and Vomiting (88). After that 83 patients were having Anorexia while 71 patients had Weight loss followed by Melena, Mass and Dysphagia.

Table 2: Histopathological examination (HPE) distribution in Carcinoma Stomach

HPE	No. of Patients	% of patients
Adenocarcinoma	88	88
Squamous cell carcinoma	4	4
GIST	3	3
Hepatiod Carcinoma	2	2
Intramucosal Epithelial Malignancy	2	2
Others	1	1
Total	100	100

Table 2 Shows Adenocarcinoma in 88 patients followed by Squamous cell carcinoma in 4 patints, GIST in 3 Patients, Hepatiod Carcinoma and Intramucosal Epithelial Malignancy in @ patients each.

Discussion

During the trial, 107 persons were suspected of having stomach cancer. The majority of respondents are Hindus because the study was carried out in rural regions. A wide range of dishes are preferred by the locals. In rural villages, alcohol drinking, smoking, and bidding are all encouraged. Most importantly, it's usual to see people chewing tobacco at work. [6] According to Wanebo et al., the seventh and eighth decades had the highest age occurrence. The sixth and seventh decades were the peak age incidence according to Malik et al., while the fifth and sixth decades were the peak age incidence according to K.R. Leena Devi. [7,8] Additionally, the typical age of stomach cancer was examined and contrasted with previously released information. The average age of onset, based on recent study, is 54.66 years. Liang et al. and Vaughan reported 59 and 59.8, respectively, whereas Meyers et al. reported a mean age of occurrence of 60.0. [9-11] Based on data research, stomach cancer is more common in men, which makes sense given that most patients have male-oriented lifestyle habits including drinking and smoking. A history of stomach ulcers, obesity, and a mixed diet all aided in the favorable development of cancer. Abdominal pain was the most prevalent symptom, followed by vomiting. Additionally, there was a history of malena, weight loss, and appetite reduction as well as illness and the development of a mass in the abdomen. Additionally, jaundice was noted in multiple patients. In earlier studies, the most common symptom was stomach discomfort, according to Wanebo et al., Diehl et al., and Barad et al. [1,7,12] The present study and research conducted by Goldsmith et al. have revealed that an abdominal mass is a common clinical observation. [13] These results provide credence to the conclusions drawn from our study. Affected locations were evaluated as well. The most risky region is usually the abdominal antrum, which is followed by the pylorus and the cardia in over half of the cases. There aren't many known cases of fundus carcinoma. The commencement of an advanced stage with liver metastates was indicated by the formation of icterus. The CT scan and stomach USG both showed thickening of the abdominal wall. The majority of patients had adrenal cancer. At the research center, stage 4 gastric cancer was present in more than half of the patients, with stage 3C following. [14]

Conclusion

According to our research, stomach cancer risk rises with age, particularly beyond the age of forty. Eliminating stomach cramping agents like alcohol, drugs, tobacco, and cigarettes lowers the risk of cancer and upset stomach. Extra caution should be used when managing weight gain, and testing for abdominal discomfort may be an important diagnostic tool in the future. a greater understanding of the etiology by the general public, as well as the role that healthcare facilities play in risk and case management and early hospital reporting.

References

1. Barad, Arun Kumar et al. “Gastric cancer-a clinicopathological study in a tertiary care centre of North-eastern India.” Journal of gastrointestinal oncology. 2014; 5(2): 142-7.
2. Akulwar A, Akulwar A, Rao S, Narang R. A clinicopathological study of stomach carcinoma in a tertiary care hospital of central India. Int Surg J. 2019; 6:2093-6.
3. Barad A, Mandal S, Sharma B, et al. Gastric cancer – a clinicopathological study in a tertiary care centre of North-eastern India. Gastrointes Oncol. 2014; 5:142-147.
4. Edgren G., Hjalgrim H., Rostgard K., et al. Risk of gastric cancer and peptic ulcer in relation to ABO blood type; a cohort study. Am J Epodemiol. 2010; 172; 1280-1285.
5. Haenszel W, Kurihara M, Segi M, et al. Stomach cancer among Japanese in Hawaii. JNCI. 1972; 49: 969-988.
6. Nagpur Cancer Registry Division of The Mumbai Cancer Registry. Cancer Incidence and Mortality in Nagpur City, 2005-2009. Indian Cancer Society, Mumbai.
7. Wanebo HJ, Kennedy B, Chmiel J, Steele Jr G, Winchester D, Osteen R. Cancer of the stomach. A patient care study by the American College of Surgeons. Annals of surgery. 1993; 21 8(5):583.
8. Malik M, El Din Z, El Masri S. Cancer of the alimentary tract in the Sudan. A study of 546 cases. Cancer. 1976;37(5):2533-42.
9. Meyers WC, Damiano Jr RJ, Rotolo FS, Postlethwait RW. Adenocarcinoma of the stomach. Changing patterns over the last 4 decades. Annals of surgery. 1987;205(1):1.
10. Liang Y-X, Deng J-Y, Guo H-H, Ding X-W, Wang X-N, Wang B-G, et al. Characteristics and prognosis of gastric cancer in patients aged≥ 70 years. World journal of gastroenterology: WJG. 2013;19(39):6568.
11. Vaughan TL, Davis S, Kristal A, Thomas DB. Obesity, alcohol, and tobacco as risk factors for cancers of the esophagus and gastric cardia: adenocarcinoma versus quamous cell carcinoma. Cancer Epidemiology Biomarkers & Prevention. 1995;4(2):85-92.
12. Diehl JT, Hermann RE, Cooperman AM, Hoerr SO. Gastric carcinoma. A ten-year review. Annals of surgery. 1983;198(1):9.
13. Goldsmith H, Ghosh B. Carcinoma of the stomach. American journal of surgery. 1970; 120(3):317.

14. Mohandas K, Desai DC. Epidemiology of digestive tract cancers in India. V. Large and small bowel. Indian journal of gastroenterology: official journal of the Indian Society of Gastroenterology. 1998;18(3):118-21.