



A STUDY ON THE RELATIONSHIP OF UPPER GI TRACT MALIGNANCY WITH DYSPEPSIA AT IGIMS, PATNA

General Surgery

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ABSTRACT

Objective: To find out the incidence of malignancies in dyspeptic patient in specific period of time and to correlate the histopathological findings to various causative agents and risk factor. A retrospective study was done at IGIMS, Patna on the patients who visited hospital between period of July 2019 to May 2020. Exclusion criteria were patients with age under 17 years old and patients with documented chronic liver disease. Detailed history taking and clinical examination was done and data was recorded altogether, 500 dyspeptic patients from Gen.Surgery department of IGIMS, Patna, (both outpatient and in-patient) from July 2019 to May 2020 were studied and analysed. Out of total, 250 cases (50%) were of functional dyspepsia and rest were of organic type. Among organic dyspepsia patient 20 cases (8%) had biopsy proven malignancy. Maximum incidence was found in 6th decade (40%) with male predominance. Gastric malignancy was more common among Hindus (80%) and in lower socio economic group (45%) with gastric antrum as most common site. Adenocarcinoma was the most common histological type. The present study has pointed out the important epidemiological contributions in the incidence of upper G.I. malignancy in dyspeptic patients

KEYWORDS

Dyspepsia, Gastrointestinal, Malignancy, Stomach.

INTRODUCTION

The term dyspepsia was derived from the Greek word meaning bad digestion.

It is defined as having one or more symptoms of epigastric pain, burning, post prandial fullness, or early satiety¹. Bloating and nausea often coexist with dyspepsia but are nonspecific and are thus not included in its definition. Heartburn is also excluded from diagnostic symptoms criteria for dyspepsia since it is thought to primarily arise from the oesophagus and it is suggestive of GERD although it too may occur concomitantly².

Dyspepsia is broadly classified into 2 groups: - (1) Functional dyspepsia (2) Organic dyspepsia. Functional Dyspepsia is likely a heterogeneous disorder with sub groups identified based on different demographic, clinical and pathophysiological features. The Rome III working group defined functional dyspepsia as the presence of symptoms thought to originate in the gastroduodenal region in the absence of any organic, systemic or metabolic disease that is likely to explain them³. Organic dyspepsia denotes dyspepsia for which a responsible disease process has been identified. In patients with organic dyspepsia there are 3 major causes of dyspepsia: GERD, chronic peptic ulcer disease and malignancy.

Dyspepsia is prevalent in more than one fourth of general population and is the frequent reason for medical consultation. It accounts for 40-70% of gastrointestinal complaints in general medical practice⁴.

Upper gastrointestinal malignancy has been estimated globally to happen in about 1.4 million new cases in 2018⁵. Greater than 50% of the world's new cases of gastric cancer, and greater than 70% of newly diagnosed oesophageal cancer worldwide occur in Asian countries. Endoscopy is the standard examination to diagnose UGI malignancy⁶. Nevertheless, a prompt endoscopy for every dyspeptic patient cannot be a practical approach because it is not cost-effective and increases the work load of health care workers⁸. Therefore, American Gastroenterology Association recommends dyspeptic patients over 55 years, or those with alarming features such as weight loss, dysphagia, gastrointestinal bleeding, anaemia or persistent vomiting should undergo endoscopy⁹. The incidence rate of GI tract cancer in India is moderate to low and it varies significantly from region to region. Highest rate is recorded in the urban population of Mumbai and lowest in the rural population of Maharashtra.

In both sexes, the Ca oesophagus is the commonest site followed by stomach, gall bladder, rectum and liver. The incidence of Ca oesophagus and stomach is declining steadily in India. Though the incidence of Ca

oesophagus is somewhat high in India but not as high as rates reported in Japan (78%), Sweden (47%)⁸. Many risk factors are associated with the upper GI tract malignancies such as tobacco and alcohol use, diet containing nitrates and nitrosamine, occupational hazards, consumption of coffee and tea, low socio economic status and low literacy.

These risk factors are very prevalent in the state of Bihar. It has a mixed population consisting of tribal, non-tribal and immigrants from all over India having different lifestyles, dietary habits and culture.

Indira Gandhi Institute of Medical Sciences, Patna is one of the pioneer institutes of Bihar. Patients from different parts of the state get referred here. In Bihar no recent work has been done on this topic, therefore more study on this subject is required to highlight the different aspect of the problem.

AIMS & OBJECTIVES

To find out the incidence of malignancies in dyspeptic patient in specific period of time and to correlate the histopathological findings to various causative agents and risk factor.

MATERIAL AND METHODS

The material for the study was obtained from patients admitted with dyspepsia having clinical evidence of gastrointestinal malignancy attending during the period of July 2019 to May 2020 in the Department of Surgery, IGIMS, Patna belonging to both sexes and all age groups.

A retrospective study was done with regard to age, sex, socio economic status, religion, symptoms, duration of symptoms, severity and risk factors with relation to the underlying disease. The inclusion criteria were all patients with dyspepsia who underwent Upper GI endoscopy examination.

Exclusion criteria were patients with age under 17 years old and patients with documented chronic liver disease.

Detailed history taking and clinical examination was done and data was recorded. Endoscopy report of all patients who had alarming symptoms like significant weight loss, dysphagia, GI bleeding, anaemia were collected and biopsies taken from suspicious area were sent for histo-pathological examination, reports of which were also kept and analysed.

RESULT AND DISCUSSION

Altogether, 500 dyspeptic patients from Gen.Surgery department of IGIMS, Patna, (both outpatient and in-patient) from July 2019 to May

2020 were studied and analysed. Out of total 250 cases (50%) were of functional dyspepsia whereas in rest cases organic dyspepsia was found. The observation is similar to Julkunen's study(1995) but dissimilar to Petersen's(1995) who reported in his series ,functional dyspepsia in 71% & organic dyspepsia in 29%.Kang (1994) observed functional dyspepsia in 50% and organic dyspepsia in rest 50%. Among organic dyspepsia patient 20 cases (8%) had biopsy proven malignancy. Maximum incidence was found in 6th decade (40%) followed by 5th decade. Paymaster (1968) from Mumbai, Subharwal et al.(1975) from Ludhiana showed more than 60% of stomach carcinoma occurs in 5th and 6th decade of life. Incidence of malignancy has male predominance with male to female ration of 3:2.Paymaster et al. (1968) from Tata Memorial Hospital, Mumbai reported male-female ratio in gastric malignancy as 2.6:1.Costello et al (1977) observed male-female ratio to be 1.1:1.In USA male-female ratio is 2:1 (Neuget et al.1996).The male –female ratio in all G.I.T malignancies shows male preponderance in the present study, which is similar to observation made by other workers. As far as association with religion was concerned, gastric malignancy was more common among Hindus (80%) than Muslims (15%).The incidence of upper G.I.T malignancy in Hindus in present study is almost similar to that of Koteswar Rao et al. (1983) and Nagraj Rao D et al (2002) but dissimilar to Khodaskar et al. (1982).It is probably because of the variable population density in Muslims and Christians. Gastric malignancy was more common in lower socio economic group(45%) compared to upper class group (5%).The findings are similar to that of study conducted by Prabhakar et al .(1981) from Amritsar ,by Koteswar Rao et al.(1983) from Karnataka. People with lower socio economic status are more prone to have malignancy at the antrum as compared to people with higher socio economic status who are more prone to have malignancy at the Cardia.In gastric malignancy antrum was detected as the most common site (70%) followed by body (15%).Adenocarcinoma of the stomach(14) was the most common malignancy followed by squamous cell carcinoma of oesophagus(2 cases).Similar studies conducted by Remine (1969) reported that 95% of gastric malignancy was adenocarcinoma in nature whereas squamous cell carcinoma is a rare finding. Malik et al. (1976) found 90.3 % were adenocarcinoma followed by 5.6% lymphoma .The gastric malignancy was more common in those who had rice as staple food.Segi et al. (1957) noticed a high incidence of gastric malignancy (50%) who used rice as staple food. Ramesh Tandon (1986) in the same manner expressed the higher frequency (49%) in the people of South India where rice is a staple diet. Green vegetable and fresh fruits especially citrus fruits showed protective effects on gastric malignancy. Mathew A, Gangadharan P et al. (2000) reported that high consumption of rice, chili and consumption of high-temperature food are independent risk factors for gastric carcinoma in South India. Smoking is found in nearly half of the patients in the present study. This finding is similar to study made by Gajalaxmi C.K.et al (1996) who reported that bidi and cigarette smoking are significant risk factors for stomach cancer. Paymaster et al. (1986) also found high incidence of gastric malignancy in smokers. Alcohol addiction is present in 50% of cases .Similarly segi (1957) also observed high incidence of gastric carcinoma among rice wine takers in Japan. Gastric malignancy was more common in blood group A (50%). Rai, Saronwala and Singh (1972), studied the association of G.I.T malignancies with different blood group. They found that all G.I.T malignancies were common in blood group A patients which is similar to the present study but there is low incidence in patients with blood group 'AB'.The predominance of blood group 'A' involvement in gastric malignancy in the present study is similar to Rai et al.(1972),Ian Aird (1953) and Doll et al.(1960) but the present finding is not in accordance with that of Koteswar Rao (1983) who found highest incidence of gastric malignancy O blood group followed by 'B' and 'A' group respectively. The commonest presenting feature was anorexia(90%) followed by weight loss(80%) and weakness.Shahon (1955) in his study observed that majority of gastric malignancy patients presented with pain abdomen (66%). Prakash (1980) noticed that majority of patients presented with anorexia(80%) similar to this study. Jaundice and ascites were present in 3% of cases.

CONCLUSION

The present study has pointed out the important epidemiological contributions in the incidence of upper G.I. malignancy in dyspeptic patients. There is strong need to educate people regarding the importance of the ill effect of smoking, alcohol use and various aspect of lifestyle which are associated with upper G.I. malignancy.

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