Incidence Of Stomach Carcinoma In Patients With Acid Peptic Disease In Rural Hospital

P Karthick, K Chidambaram., T Sowmya., R Natarajan.

Citation

Abstract
Background: Gastric cancer is the second most common cause of cancer-related death in the world. Many Asian countries, including Korea, China, Taiwan, and Japan, have very high rates of gastric cancer. Gastric cancer was the leading cause of cancer deaths in men and the third leading cause of cancer deaths in women in the early 1940s. Gastric cancer remains a difficult disease to cure in Western countries, primarily because most patients present with advanced disease. Hence detecting early will decrease the mortality and morbidity

Objectives: To identify the incidence of carcinoma stomach in patients presenting with acid peptic ulcer disease.

Methods: To examine all the patients attending the OPD with dyspeptic/ acid peptic ulcer disease symptoms and the other causes of dyspepsia/peptic ulcer symptoms has been ruled out by other radiological/biochemical investigations and then they are subjected to upper GI scopy and biopsy.

Results: The incidence of carcinoma of stomach is around 44% in patients presenting with acid peptic ulcer disease symptoms. The incidence of carcinoma stomach is more towards old age people. There is strong association between smoking and carcinoma stomach. There is less percentage of relation between carcinoma of stomach and alcohol.

Conclusion: patients attending hospital with acid peptic ulcer disease symptoms have high incidence of carcinoma of stomach mainly in old age group. Hence patients attending hospital with peptic ulcer disease symptoms should be subjected to routine upper gastro intestinal endoscopy & endoscopic biopsy.

INTRODUCTION
Gastric cancer is the second most common cause of cancer-related death in the world. Many Asian countries, including Korea, China, Taiwan, and Japan, have very high rates of gastric cancer. Gastric cancer was the leading cause of cancer deaths in men and the third leading cause of cancer deaths in women in the early 1940s. Gastric cancer remains a difficult disease to cure in Western countries, primarily because most patients present with advanced disease. Many patients present with distant metastases, carcinomatosis, unresectable hepatic metastases, pulmonary metastases, or direct infiltration into organs that cannot be resected completely. Hence detecting early will decrease the mortality and morbidity

AIMS
To study the incidence of carcinoma stomach in patients presenting with acid peptic ulcer symptoms for upper GI scopy.

Correlating between the incidence of carcinoma stomach and histopathological types.

To study the incidence of carcinoma stomach related to factors like age, alcohol ingestion & smoking.

OBJECTIVE
To identify the incidence of carcinoma stomach in patients presenting with acid peptic ulcer disease.

METHODS
All the patients attending the OPD with dyspeptic/ acid peptic ulcer disease symptoms were examined and the other causes of dyspepsia/peptic ulcer symptoms has been ruled out by radiological/biochemical investigations and then they are subjected to upper GI scopy and biopsy.

INCLUSION CRITERIA
EXCLUSION CRITERIA
RESULTS
Incidence Of Stomach Carcinoma

Out of 100 cases studied who presented with acid peptic ulcer disease symptoms 44 patients (44%) had carcinoma of the stomach.

Other 56 patients (56%) had benign disease like reflux esophagitis (8), prepyloric ulcer (9), gastric ulcer (10), duodenal ulcer (12), antral gastritis (11), normal (6).

**Figure 1**

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>TOTAL PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinoma stomach</td>
<td>44</td>
</tr>
<tr>
<td>Reflux esophagitis</td>
<td>8</td>
</tr>
<tr>
<td>Prepyloric ulcer</td>
<td>9</td>
</tr>
<tr>
<td>Gastric ulcer</td>
<td>10</td>
</tr>
<tr>
<td>Duodenal ulcer</td>
<td>12</td>
</tr>
<tr>
<td>Antral gastritis</td>
<td>11</td>
</tr>
<tr>
<td>Normal</td>
<td>6</td>
</tr>
</tbody>
</table>

**Figure 2**

![TOTAL PATIENTS (100)](image)

**Figure 3**

Age Distribution

**Figure 4**

Age vs. Endoscopic findings

<table>
<thead>
<tr>
<th>AGE (years)</th>
<th>Total patients</th>
<th>Carcinoma stomach</th>
<th>RE</th>
<th>PU</th>
<th>GU</th>
<th>DU</th>
<th>AG</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-30</td>
<td>22</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>31-50</td>
<td>35</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>51-70</td>
<td>36</td>
<td>20</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>&gt;70</td>
<td>12</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(RE-reflux esophagitis, PU-pre pyloric ulcer, GU-gastric ulcer, DU-duodenal ulcer, AG-antral gastritis)

**ALCOHOL AND CARCINOMA OF THE STOMACH**

Out of 100 cases 44 patients had carcinoma stomach and out of 44 carcinoma stomach cases 10 patients were alcoholic and 34 patients were non alcoholic.

**Figure 5**

![carcinoma of the stomach vs alcoholic vs nonalcoholic](image)

Smoking vs. Carcinoma stomach

Out of 100 cases 44 patients had carcinoma stomach and out of 44 carcinoma stomach cases 30 patients were smokers and 14 patients were non smokers.
DISCUSSION

The relation between peptic ulcer and stomach cancer has long been disputed, but there is accumulating evidence that gastric ulcer disease is positively associated and duodenal ulcerations negatively associated with the risk of developing stomach cancer.

As Helicobacter pylori infection is associated with both types of ulceration and stomach cancer, the varying outcomes of the infection indicate that factors other than the infection must be of importance. At present, there is no convincing evidence that pharmacologic inhibition of acid secretion for treatment of peptic ulcer increases the risk of stomach cancer.

However, some recent studies indicate that prolonged treatment with proton pump inhibitors may accelerate the development of atrophic gastritis, a risk factor for stomach cancer, in individuals infected with H. pylori. It has repeatedly been shown that there is an at least twofold increased risk of stomach cancer 15 years after gastric resection for peptic ulcer disease, and that the risk increases with the passage of time. Whether vagotomy has the same risk-increasing effect is still unclear.

Gastric cancer remains a difficult disease to cure in Western countries, primarily because most patients present with advanced disease. Even patients who present in the most favourable condition and who undergo curative surgical
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resection often die of recurrent disease. Two recent studies have demonstrated improved survival with adjuvant therapy; a US study using postoperative chemo radiation[1] and a European study using preoperative and postoperative chemotherapy.[2] Gastric cancer may often be multifactorial involving both inherited predisposition and environmental factors.[3] Smoking increases the risk of cardiac and noncardiac forms of stomach cancer. Cessation of smoking reduces the risk. A meta-analysis of 40 studies estimated that the risk was increased by approximately 1.5- to 1.6-fold and was higher in men.[4] H pylori infection is associated with chronic atrophic gastritis, and patients with a history of prolonged gastritis have a 6-fold increase in their risk of developing gastric cancer. Interestingly, this association is particularly strong for tumours located in the antrum, body, and fundus of the stomach but does not seem to hold for tumours originating in the cardia. Previous surgery is implicated as a risk factor. The rationale is that surgery alters the normal pH of the stomach, which may in turn lead to metaplastic and dysplastic changes in luminal cells.[5]

DP. Dasakat-MH (1990)[6] studied 204 Arab patients undergoing upper GI scopy for symptoms with acid peptic ulcer disease around 40% had carcinoma of the stomach. Kazi-Jafarey-NA (1990)[7] studied the prevalence of carcinoma of the stomach in peptic ulcer patients about 23% of patients had evidence of carcinoma of stomach and in that 23% around 20% had adenocarcinoma. Fallingborg-J, Peulsen-Lo (1992)[8] studied 150 old patients with dyspeptic symptoms and underwent endoscopy and biopsy 45% had carcinoma of the stomach. Sandika-s, Doran-F, Koksal-F(1993) investigated 500 patients referred for upper GI endoscopy with acid peptic ulcer disease symptoms and confirmed that 38% had carcinoma of the stomach and also concluded incidence of carcinoma stomach is increasing with age. G.Lakatos, L.Herszenyi, M Juhasz, P Miheller (2004-2007) studied the incidence of carcinoma of the stomach in patients with peptic ulcer disease and correlated with their food habits, smoking and alcohol intake around 34% had carcinoma of the stomach and had high association with old age, smoking.

Correlating with the other studies, our study also gives higher incidence of carcinoma stomach with patients presenting with acid peptic ulcer disease symptoms. At present, many newer endoscopic techniques like EMR-Endoscopic Mucosal Resection are available for early gastric cancer management. Hence early detection of carcinoma of the stomach and health education for patients to undergo endoscopy whoever has dyspeptic symptoms and all hospitals making as a standard protocol to do upper gastrointestinal endoscopy for patients with acid peptic ulcer disease will surely favours early detection of gastric cancer and they are amenable for easier endoscopic procedure in early stage instead of a major surgical procedure.

CONCLUSION

The following factors emerge from the study,

In the view of the above results patients attending hospital with acid peptic ulcer disease symptoms have high incidence of carcinoma of the stomach mainly in old age group. Hence patients attending hospital with peptic ulcer disease symptoms should be subjected to routine upper gastrointestinal endoscopy & endoscopic biopsy.

ACKNOWLEDGEMENT

I fully owe my acknowledgement to the patient, without whom the whole article is not possible.

References

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