

**Original Article**

## Age and Sex Difference of Stomach Cancer Patients attended at a tertiary Care Hospital in Dhaka

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### Abstract

**Background:** Metastasis is frequently occurred among the gastric carcinoma patients. **Objectives:** The purpose of the present study was to detect the age and sex difference of stomach cancer patients attended at a tertiary care hospital in Dhaka. **Methodology:** This cross-sectional study was carried in the department of Radiology and Imaging of Dhaka Medical College, Dhaka during the period of July 2009 to June 2011. Clinically suspected gastric carcinoma patients were evaluated by ultrasonography of upper abdomen and or Ba-meal x-ray evaluation. The sonographic findings were noted. All these patients were properly follow up and collect the endoscopic biopsy and or surgical resection biopsy reports. **Result:** A total number of 60 patients were evaluated with the age ranged between 31-80 years. There were 39(65%) men and 21(35%) women. Among the 27 patients confirmed as gastric carcinoma by histopathological examination, the age ranged between 31-80 years with the highest number of patients in the age group 61-70 years. Out of the 27 patients confirmed as gastric carcinoma by histopathological examination, there were 18(66.7%) men and 9(33.3%) women. **Conclusion:** Gastric carcinoma is most commonly found in male in the older age group. [Journal of Science Foundation 2016;14(2):49-51]

**Keywords:** Gastric carcinoma; metastasis; ultrasonography; gender difference

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### Introduction

Incidence of gastric carcinoma as well as other gastric malignancies is increasing day by day in the whole world as well as in Bangladesh (Islam et al., 2009). Gastric carcinoma is the fourth most common tumour in the world. Its' incidence being particularly high in countries such as Japan, Chile, Costa Rica, Colombia, China, Russia, Bulgaria and four to six fold less common in USA, UK and Canada (Singh and Chowdhury 2005). It is more common in lower socioeconomic groups. Globally, it is the second leading cause of cancer-related death, with 700000 deaths annually (McCullough and Blaser, 1989). The prevalence rates in developing Asian countries such as Bangladesh, India, Thailand and Vietnam have been reported to be especially high at 92.0%, 81.0%, 74.0% and 75.0%, respectively (Islam et al, 2009). Age range of gastric carcinoma is 31-80 years with male preponderance (Singh and Chowdhury, 2005).

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Ultrasonography is one of the modern diagnostic tool in our country which are now widely used and a cheap, available imaging modality (George 1996). It has recently been shown that transabdominal ultrasound performed after ingestion of water and injection of a hypotonic agent along with the use of multi-frequency transducers provides detailed and unique evaluation of the stomach (Singh & Chowdhury, 2005). The purpose of the present study was to detect the age and sex difference of stomach cancer patients attended at a tertiary care hospital in Dhaka.

## Methodology

This cross-sectional study was carried in the department of Radiology and Imaging of Dhaka Medical College, Dhaka. Patients who were presented with the clinically suspected gastric carcinoma referred to the Department of Radiology and Imaging by indoor and outdoor Surgery department of Dhaka Medical College Hospital, Dhaka during the period of July 2009 to June 2011 were selected as study population. Patients were examined by ultrasonography of upper abdomen or by Ba-meal x-ray evaluation. Detailed clinical history and relevant points in clinical examination and investigations were noted. The patients were then subjected to do transabdominal hydrosoneography of the stomach at the department of Radiology and Imaging, Dhaka Medical College Hospital, Dhaka. The Sonographic findings were noted. The extent of tumour infiltration and metastasis was assessed in all patients with suspected gastric malignancy. Endoscopic or surgical resection biopsy was performed and was recorded.

## Results

Among 76 patients, 3 unwilling to take part in the study, 4 patients refused to undergo endoscopy or surgery, 5 patients were unfit for the same and in 4 cases, and histopathological reports were not available. Ultimately 60 patients were evaluated finally. So, Sixty patient were taken for the study of them thirty nine were male and twenty one were female with the age range 31-80 years and sixteen patient were out of the study with above mentioned cause. Among 60 patients included in this study the age ranged between 31-80 years. Among the 27 patients confirmed as gastric carcinoma by histopathological examination, the age ranged between 31-80 years with the highest number of patients in the age group 61-70 years (Table 1).

**Table 1: Age distribution of study population (n=60)**

Age Group	Gastric Carcinoma		Total
	Present	Absent	
31 to 40 Years	1(3.7%)	1(3.0%)	2(3.3%)
41 to 50 Years	4(14.8%)	2(6.1%)	6(10.0%)
51 to 60 Years	9(33.3%)	13(39.4%)	22(36.7%)
61 to 70 Years	10(37.1%)	15(45.4%)	25(41.7%)
71 to 80 Years	3(11.1)	2(6.1%)	5(8.3%)
<b>Total</b>	<b>27(100.0%)</b>	<b>33(100.0%)</b>	<b>60(100.0%)</b>

There were 39 men (65%) and 21 women (35%). Out of the 27 patients confirmed as gastric carcinoma by histopathological examination, there were eighteen men (66.67%) and nine women (33.33%) (Table 2).

**Table II: Sex distribution of study population (n=60)**

Gender	Gastric Carcinoma		Total
	Present	Absent	
Male	18(66.7%)	21(63.6%)	39(65.0%)
Female	9(33.3%)	22(36.4%)	21(35.0%)
<b>Total</b>	<b>27(100.0%)</b>	<b>33(100.0%)</b>	<b>60(100.0%)</b>

## Discussion

In this cross sectional study the age incidence high in between 61 to 70 years range and is about 41.67%

which corresponds to most of the previous study (Samad et al., 2007). However in a study age distribution is different and showed that 50-60 years range incidence is higher (Alim et al., 2007). As in Bangladesh, patients are from low socioeconomic condition and come to hospital at end stage so the presentation is late. In this study male presentation is more than female because females are neglected and present late or not at all, however the study mostly agreed with other study done in Asian population (Singh and Chowdhury 2005).

In two cases of gastric carcinoma diffuse circumferential wall thickening was seen on sonography. Endoscopy interpreted one case as normal. Owing to the diffuse wall thickening seen on sonography a repeat endoscopy was undertaken. A repeat endoscopic biopsy revealed it to be a case of scirrhous carcinoma. This may be attributed to the well known difficulty of endoscopy in diagnosing these tumours as the overlying mucosa appears normal, its diagnostic yield is higher in exophytic lesions than in infiltrative lesions. Another case of diffuse circumferential wall thickening was diagnosed as gastric lymphoma. Various studies have been done previously to show the usefulness of the diagnosis of gastric carcinoma with high sensitivity and accuracy. As ultrasound is often used as the first imaging modality in a large variety of abdominal complaints clinically unsuspected gastric carcinoma may be imaged first by it (Sadownik et al., 2006). So transabdominal hydrosonography ranks with the initial methods used for diagnosing gastric carcinoma. Some investigators, however, recommended further studies for verification of its usefulness in the assessment of gastric carcinoma (Polkowski et al, 2002).

During surgery transverse colon was found to be invaded in three patients. Of them, correct diagnosis was made by transabdominal hydrosonography only in 1 patient where complete circumference of transverse colon was markedly invaded. In two others undetected by transabdominal hydrosonography, transverse colon was slightly invaded and bowel gases interfered severely.

## Conclusion

In conclusion gastric carcinoma is most commonly found in male patients; however, the older age group are more vulnerable than the younger age group. Further large scale study should be carried out to get accurate scenario in Bangladesh general population.

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