

Case Report

Synchronous Upper GIT Malignancy in an Elderly Patient

MMSU Islam¹, MN Sarker², SNE Jannat³, N Das⁴, MI Hossain⁵, SK Mondal⁶, ATMA Rahman⁷, DS Ahmed⁸

Abstract:

Previously thought that, synchronous colonic cancers are relatively common but synchronous upper gastrointestinal cancers are relatively uncommon. But now a days, frequency of synchronous esophageal cancers, gastric cancers or duodenal cancers is increasing due to availability of the upper GI endoscopy, and the prolonged life span of the general population. Here we discussed an elderly male who presented with features of gastric outlet obstruction and dysphagia and finally diagnosed as simultaneous esophageal squamous cell carcinoma and gastric adenocarcinoma.

Key words: Upper GIT, Synchronous malignancy, Squamous cell carcinoma, Adenocarcinoma.

Introduction:

Multiple (two or more) primary malignancies are defined when following 4 criteria are satisfied: 1. each tumor is malignant; 2. each tumor has its own pathological features; 3. each tumors occur in different parts of the organs, and are not continuous with each other; and 4. each tumor has its own metastatic pathway and the diagnosis of metastatic or recurrent tumors can be excluded¹⁻³.

Warren and Gates have also described that, if second malignancy found at the same time or within a 6-month period of the emergent primary lesion it is accepted as synchronous, and if the interval is over 6 months, then it is accepted as metachronous¹.

1. Dr. M. M. Shahin-Ul-Islam, MBBS, FCPS (Medicine), MD (Gastroenterology), Associate Professor (CC), Department of Gastroenterology, BSMMC, Faridpur.
2. Dr. Mst. Naznin Sarker, MBBS, FCPS (Paediatrics), MD (Paediatric Gastroenterology), Assistant Professor, Department of Paediatrics, BSMMC, Faridpur.
3. Dr. Syeda Nur-E-Jannat, MBBS, FCPS (Medicine), MD (Gastroenterology), Assistant Professor, Department of Gastroenterology, Dhaka Medical College, Dhaka.
4. Dr. Nimai Das, MBBS, MD (Gastroenterology), Medical Officer, Department of Gastroenterology, BSMMC, Faridpur.
5. Dr. Mohammad Iqbal Hossain, FCPS (Medicine), Assistant Professor, Department of Medicine, BSMMC, Faridpur.
6. Dr. Swapan Kumar Mondal, MBBS, MD (Nephrology), Assistant Professor, Department of Nephrology, BSMMC, Faridpur.
7. Dr. ATM Aatur Rahman, MBBS, MD (Gastroenterology), Associate Professor, Department of Gastroenterology, BSMMC, Faridpur.
8. Dr. Dewan Saifuddin Ahmed, MBBS, FCPS (Medicine), MD (Gastroenterology), Professor, Department of Gastroenterology, BSMMU, Dhaka.

Address of correspondence :

Dr. M. M. Shahin-Ul-Islam, MBBS, FCPS (Medicine), MD (Gastroenterology), Associate Professor (CC), Department of Gastroenterology, BSMMC, Faridpur. Phone: +8801711986290, E-mail: mmshahinul.islam@bsmmc.edu.bd

Synchronous colonic cancers are relatively common and found in about 20% of resected colonic segments^{4,5}, but synchronous upper gastrointestinal malignancies are relatively uncommon⁶.

Here we discussed an elderly man presented with synchronous esophageal and gastric carcinoma.

Case history:

A 75 years old male presented with upper abdominal pain, anorexia, vomiting, significant weight loss for last 4 months. He noticed post prandial upper abdominal fullness which relieved after vomiting; sometimes he used to induce vomiting by putting his finger into the throat to get relief. Vomitus contains partially digested food particles which were taken one to two days back. For last one month he felt difficulty in swallowing specially with solid food. He is smoker for last 50 years and used to take 10-15 sticks per day. He didn't give any history of hematemesis, melaena or corrosive ingestion previously. On general examination, he was emaciated, moderately anaemic; there was no jaundice, oedema, lymphadenopathy, his vital signs were normal. Examination of his abdomen shows epigastric fullness with positive succussion splash, there was no abdominal lump, organomegaly or ascites. Laboratory investigations shows, moderate anaemia (Haemoglobin-8.5 gm/dl), high ESR (70 mm in 1st hour), hypoalbuminaemia (3.0 gm/dl), mild hyponatraemia (Na-128 meq/l). Ultrasonography of abdomen shows no abnormalities. Upper gastrointestinal endoscopy was done after correction of anaemia and hyponatraemia. Endoscopy showed a growth occupying almost 50% of oesophageal lumen at about 22 cm from incisor teeth; scope was further negotiated into stomach and found a circumferential ulcerated growth at antrum with narrowing of pylorus. Endoscopic diagnosis was gastric outlet obstruction due to carcinoma stomach with

oesophageal metastasis or two separate pathology of carcinoma stomach causing gastric outlet obstruction and carcinoma oesophagus (Figure 1). Biopsy were taken from both of the lesion and collected in separate container. Histopathology revealed squamous cell carcinoma of oesophagus and adenocarcinoma of stomach.

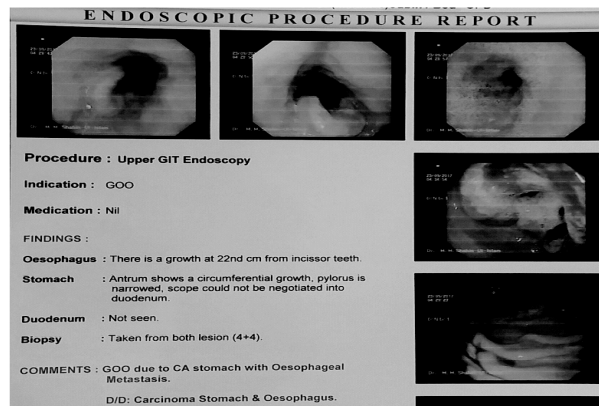


Fig-1: Endoscopic picture of synchronous oesophageal and gastric malignancy

Discussion:

It was stated that, synchronous colonic cancers are relatively common^{4,5} but synchronous upper gastrointestinal malignancies are relatively uncommon⁶. Almost 5% of gastric and colorectal cancer patients develop other primary gastrointestinal cancers synchronously or metachronously⁷.

But now a days, frequency of synchronous esophageal cancers, gastric cancers or duodenal cancers is increasing due to the application of advanced diagnostic tools, in particular, The upper GI endoscopy and the prolonged life span of the general population⁸.

We described a 75 years old man with simultaneous esophageal squamous cell carcinoma and gastric adenocarcinoma. Our patient presented with persistent vomiting and dysphagia to solid food. Upper GIT endoscopy shows a growth at mid oesophagus and another circumferential ulcerated growth at antrum with narrowing of gastric pylorus. Histopathology revealed squamous cell carcinoma of oesophagus and adenocarcinoma of stomach.

A case series of 46 patients with synchronous upper gastrointestinal malignancy described by Bai Y et al⁸ found that median age of patients was 56 years (range 12-80 years) with 81% male patients. Total 72 % patients had notable clinical features, of these dysphagia was the most common, followed by weight

loss, GI bleeding and persistent vomiting. Total 56.3% patients had synchronous esophageal and gastric cancers and 43.7% had synchronous duodenal and gastric cancers. In their study, gastric cancers were located predominantly (56.3%) in the gastric body, and most of esophageal cancers were located at the middle and lower part of esophagus. About 94% of gastric malignancies were adenocarcinomas and similarly, 94.4% of the esophageal malignancies were squamous cell carcinomas. All of the patients in their series were diagnosed simultaneously.

Another case series by Kodie N et al⁹, described 24 patients with synchronous upper GIT malignancy. Adenocarcinoma was most frequent. Most of the tumors were located at the upper or middle third of the stomach. They recommended that, synchronous gastric tumors associated with esophageal cancer are not rare. When an endoscope cannot pass through the esophagus before surgery, other techniques must be performed to explore the stomach.

Nakayama K et al¹⁰, a Japanese investigators have also described the association of esophageal squamous cell carcinoma with gastric adenocarcinomas.

A case report described by Kim SH et al¹¹, showed 52-year-old male presented with anal pain and intermittent blood-tinged stool and was finally diagnosed adenocarcinoma of stomach, combined adenocarcinoma and neuro endocrine carcinoma of the jejunum, mucinous adenocarcinoma of the ascending colon, transverse colon and rectum. After chromosomal analysis, they found microsatellite instability (MSI) in their patient. MSI was also observed in 16 of 22 (73%) patients in another study by K Yamashita et al¹².

Study by Hu MN et al¹³, found CDH1 mutations in patients with synchronous multiple primary cancer patients. CDH1 has been proposed as a tumor suppressor gene, and hence CDH1 mutations is associated with risk of malignancy.

Synchronous gastrointestinal malignancies are not rare entity, so when we found malignancy anywhere in gastrointestinal tract, we need to explore whole GIT to explore the synchronous lesion if any and treat accordingly.

Conclusion:

All distant lesions in a patient with carcinoma may not be metastasis, it may be another primary. Though synchronous upper GIT malignancy is uncommon but it is not very rare entity. So, one should search for whole upper GIT especially with carcinoma oesophagus with

luminal narrowing, where distal upper GIT should be searched after oesophageal dilatation. If more than one lesion were found, biopsy should be taken from each site and collected in separate container to find out synchronous multiple primary lesions.

References :

1. Warren S, Gates O. Multiple primary malignant tumors, a survey of the literature and a statistical study. *Am J Cancer* 1932; 16: 1358-414.
2. Xu LL, Gu KS. Clinical retrospective analysis of cases with multiple primary malignant neoplasms. *Genet Mol Res* 2014; 13:9271-9284 [PMID: 24682981 DOI: 10.4238/2014. March. 12. 19]
3. Hong WK, Lippman SM, Itri LM et al. Prevention of second primary tumors with isotretinoin in squamous-cell carcinoma of the head and neck. *N Engl J Med* 1990; 323:795-801.
4. Ekelund GR, Pihl B. Multiple carcinomas of the colon and rectum. *Cancer* 1974; 33: 1630-4.
5. Heald RJ, Bussey HJ. Clinical experiences at St Mark's Hospital with multiple synchronous cancers of the colon and rectum. *Dis Colon Rectum* 1975; 18: 6-10.
6. Shinoda M, Takagi I, Kunishima K. Multiple primary malignancies combined with esophagus and other organs. *Nippon Rinsho Gekai Gakukai Zasshi (J Jpn Soc Clin Surg)* 1999; 51: 2371-6 (in Japanese).
7. Tomoda H, Taketomi A, Baba H, et al. Multiple primary colorectal and gastric carcinoma in Japan. *Oncol Rep* 1998; 5: 147-9.
8. Bai Y, Zou DW, Zhao, Li ZS. Clinical presentation, endoscopic features, treatment and prognosis of synchronous upper gastrointestinal malignancies. *Journal of Digestive Diseases* 2012; 13: 19-23 doi: 10.1111/j.1751-2980.2011.00548.
9. Koide N, Adachi W, Koike S, Watanabe H, Yazawa K, Amano J. Synchronous gastric tumors associated with esophageal cancer: a retrospective study of twenty-four patients. *Am J Gastroenterol*. 1998 May; 93(5):758-62. doi: 10.1111/j.1572-0241.1998.220_a.x. PMID: 9625123.
10. Nakayama K, Abo S. Concurrent cancer of the esophagus in Japan. *Int Adv Surg Oncol* 1979; 2: 243-9.
11. Kim SH, Park BS, Kim HS, Kim JH. Synchronous quintuple primary gastrointestinal tract malignancies: Case report. *World J Gastroenterol* 2017; 23(1): 173-177 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v23/i1/173.htm> DOI: <http://dx.doi.org/10.3748/wjg.v23.i1.173>.
12. K Yamashita, Y Arimura, S Kurokawa, F Itoh, T Endo, K Hirata, et al. Microsatellite instability in patients with multiple primary cancers of the gastrointestinal tract. *Gut* 2000; 46: 790-94.
13. Hu MN, Lv W, Hu RY, Si YF, Lu XW, Deng YJ, et al. Synchronous multiple primary gastrointestinal cancers with CDH1 mutations: A case report. *World J Clin Cases* 2019; 7(13): 1703-1710 URL: <https://www.wjgnet.com/2307-8960/full/v7/i13/1703.htm> DOI: <https://dx.doi.org/10.12998/wjcc.v7.i13.1703>.