

Case Report

Adenocarcinoma of gastro-esophageal junction - Case report

Anupsingh Dhakre^{1*}, Ibethoi Yengkhom², Harshin Nagori¹, Anup Kurele¹, Shreedevi B. Patel³

¹2nd year Resident, ²3rd year Resident, ³Professor

Radiology Department, SBKS Medical Institute & Research Centre, Sumandeep Vidyapeeth, Vadodara, Gujarat, India

*Corresponding author email: anup26sep.singh@gmail.com

	International Archives of Integrated Medicine, Vol. 2, Issue 7, July, 2015.	
	Copy right © 2015, IAIM, All Rights Reserved.	
	Available online at http://iaimjournal.com/	
	ISSN: 2394-0026 (P)	ISSN: 2394-0034 (O)
	Received on: 17-06-2015	Accepted on: 30-06-2015
	Source of support: Nil	Conflict of interest: None declared.

Abstract

Adenocarcinoma of the gastro-esophageal junction (GEJ) remains a significant clinical problem that is increasing in incidence and is associated with a poor prognosis. The majority of patients present with advanced disease and less than 50% undergo curative treatment. To diagnose GE junction mass with conventional procedure like Barium swallow where endoscopy cannot be performed, CECT is done to access the potential spread of disease.

Key words

Adenocarcinoma, Gastro-esophageal junction, Barium swallow, CECT.

Introduction

The incidence of all malignant tumours in children is estimated at approximately 10 per 100,000. Gastrointestinal malignancies represent less than 5% of all these neoplasms. Primary gastric tumors in children are rare, and carcinoma of the stomach is even more unusual. The transitional nature of the anatomic GE junction has added further confusion to the understanding of this disease. Adenocarcinomas of the distal esophagus, GE junction, and gastric cardia have all increased in incidence, and many

studies have grouped tumors at these locations together.

The exact cause of this increased incidence is unclear. Barrett's esophagus is the single most important factor for the development of adenocarcinoma of the esophagus and GE junction [1-4].

The classification of tumors, particularly at the GE junction, has been a problematic issue that has complicated the reporting of results. A consensus conference of the International Gastric

Cancer Association (IGCA) and the International Society for Diseases of the Esophagus (ISDE) in 1998 defined and described adenocarcinomas of the GE junction as tumors that have their center within 5 cm proximally and distally of the anatomic cardia [4]. Within this area, tumors are differentiated into the following three distinct entities.

Type - I: Adenocarcinoma of the distal esophagus, usually arising from an area with specialized intestinal metaplasia of the esophagus (i.e., Barrett's esophagus); it may infiltrate the esophago-gastric junction from above.

Type - II: True carcinoma of the cardia, arising from the cardiac epithelium or short segments of intestinal metaplasia at the gastro esophageal junction; this entity is often referred to as "junctional carcinoma."

Type - III: Subcardial gastric carcinoma that infiltrates the esophago-gastric junction and distal esophagus from below [1, 3, 5, 6].

Case report

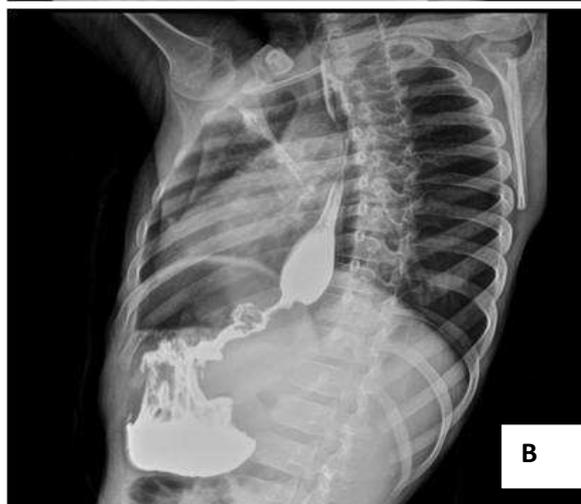
A 15 year old male patient was referred to radiology department on January 2013 for barium swallow with following complaints.

- Abdominal pain with nausea and vomiting.
- Palpable epigastric lump.
- Reduced appetite and loss of weight.
- No family h/o gastric tumour.

Barium swallow was done. Double contrast upper GI series and Barium swallow help in delineating the extent of disease.

After barium swallow patient was advised for USG neck and abdomen and CECT abdomen. USG showed multiple lesions in liver having target sign which suggest metastatic. No evidence of any ascites or neck nodes. CECT abdomen is the investigation of choice as to access the local disease process and evaluate potential spread of disease. (**Photo – 1A, 1B, 2A, 2B, 3, 4A, 4B**)

Photo – 1A, 1B: Short segment narrowing with mucosal irregularity is seen in distal esophagus causing shouldering and apple core appearance suggesting of malignant mass. Proximal dilatation of esophagus and extension of irregularity into the proximal stomach is seen.



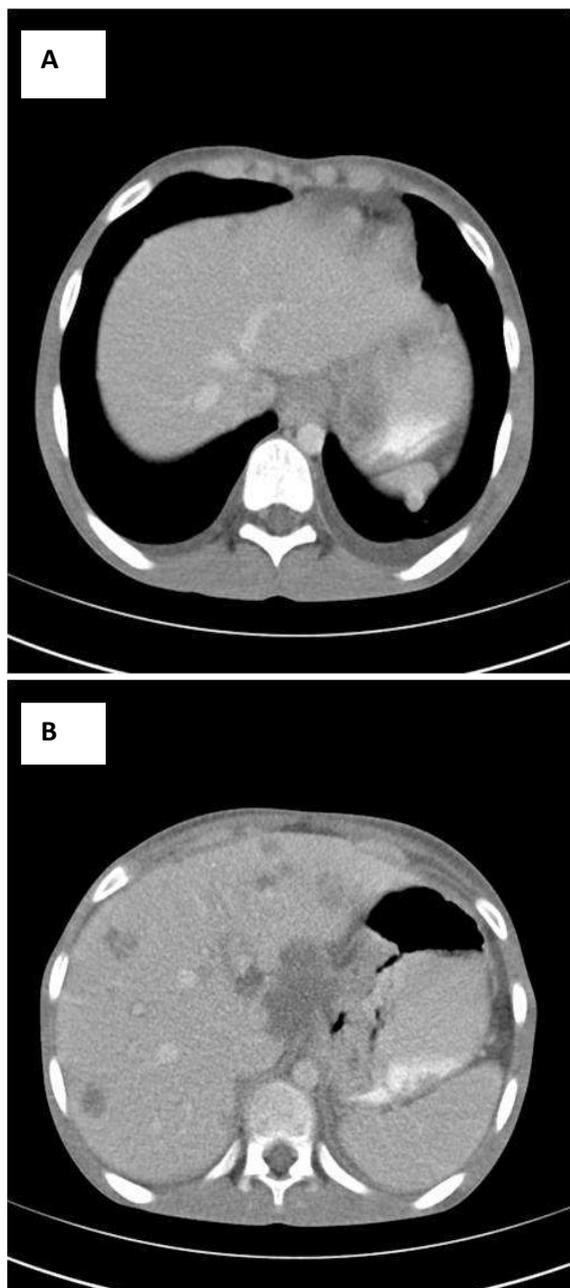
Discussion

Most patients with esophageal cancer present with advanced stage disease. Symptoms at presentation include this dysphagia, weight loss, vomiting and bleeding. Precise histological diagnosis and accurate tumor staging are prerequisites for the selection of most common treatment, especially if the patient is being considered for clinical trials.

Clinical stages determined by the extent of the disease, which is established by a variety of diagnostic test and imaging studies. Pathologic

staging is determined by evaluating a surgical specimen after resection. The recent American joint committee on Cancer (AJCC), staging system, based on the primary tumor (T)-nodal involvement (N)-distant metastases (M) system.

Photo – 2A, 2B: Axial CT scan showed irregular mass lesion at GE Junction with irregular multiple hypodense lesions in liver-metastasis.



Barium studies are useful in evaluating the morphology the tumor and have a high sensitivity (approx 98%) for demonstrating

esophageal tumors. A barium swallow provides essential information concerning gastric anatomy, location and extent of the lesion, and whether there is pathology proximal or distal to the primary lesion.

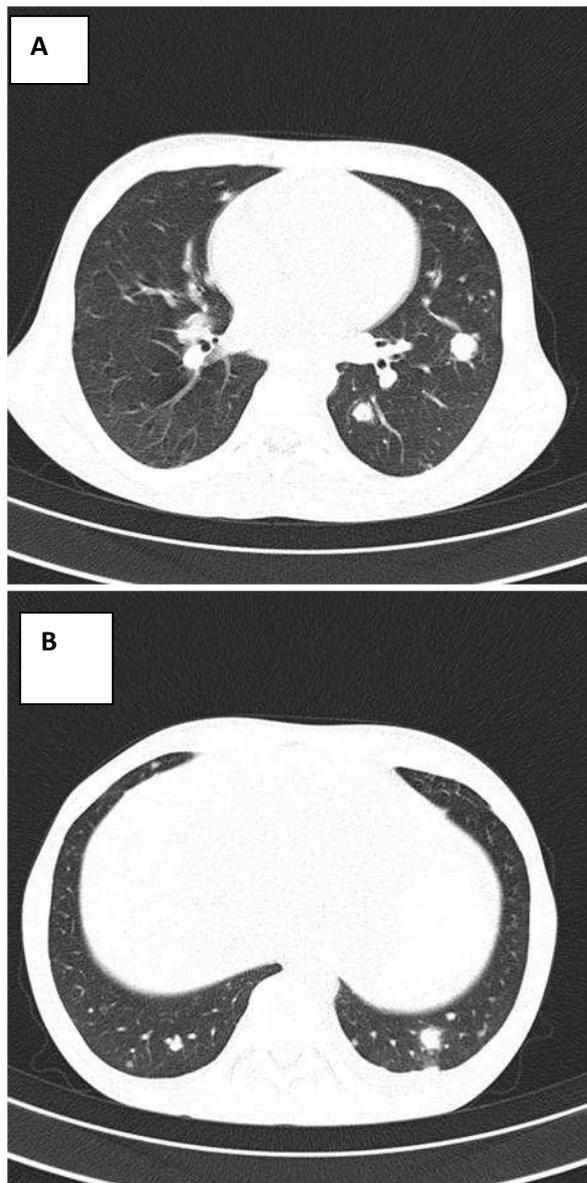
Photo – 3: CT coronal cut shows in homogenously enhancing mass lesion at GE junction. Multiple metastases are seen in lung and liver.



Though rarely the case with adenocarcinoma, bronchoscopy is recommended to rule out tracheal invasion when tumor lies at or above the carina.

Once the histological diagnosis of esophageal is established, staging of the extent of disease is done. Computed tomography (CT) of the chest and abdomen is considered the initial imaging study of choice for evaluating lymph node metastases, distant metastases and extra esophageal tumor infiltration into mediastinal organs. Abdominal ultrasonography and magnetic resonance imaging (MRI) are occasionally useful in evaluating liver metastases. The use of positron emission tomography (PET) for staging patient with esophageal carcinomas has recently been reported [2, 5, 7, 8].

Photo – 4A, 4B: Lung window cuts show multiple metastases in both lung fields.



Differential diagnosis

Gastrointestinal stromal tumor.

Lymphoma.

Treatment

Adenocarcinoma of the gastro esophageal junction remains a significant clinical problem that is increasing in incidence and is associated with a poor prognosis. The majority of patients present with advanced disease and less than 50% undergo curative treatment. In patients not receiving neoadjuvant therapy, the goal for the patients with adenocarcinoma of gastro

esophageal junction should be R0 resection including at least 15 lymph nodes, preferably with 5 cm of grossly normal in situ proximal esophagus for those with <6 positive lymph nodes. Siewert and Stein have proposed clinical classification systems, types I, II, III for Gastro-esophageal Junction cancer to aid clinicians in developing treatment strategies for this heterogeneous clinical entity [1, 9, 10, 11].

Conclusion

Exploring the biologic basis of adenocarcinoma of the GE junction will be central to expanding and improving the therapeutic options necessary to alter the natural history of this disease. The urgency for defining effective treatment is more pronounced when it is apparent that the incidence of esophageal adenocarcinoma continues to increase at an alarming rate.

References

1. Crew KD, Neugut AI.(2004) Epidemiology of upper gastrointestinal malignancies. *Semin Oncol.*, 2004; 31: 450–464.
2. Ellis FH, Heatley GJ, Krasna MJ, et al. Esophagogastrectomy for carcinoma of the esophagus and cardia: A comparison of findings and results after standard resection in three consecutive eight-year intervals with improved staging criteria. *J Thorac Cardiovasc Surg.*, 1997; 113: 836–846.
3. Ito H, Clancy TE, Osteen RT, et al. Adenocarcinoma of the gastric cardia: what is the optimal surgical approach? *J Am Coll Surg*, 2004; 199: 880–886.
4. Kelsen DP, Ginsberg R, Pajak TF, et al. Chemotherapy followed by surgery compared with surgery alone for localized esophageal cancer. *N Engl J Med.*, 1998; 339: 1979–1984.
5. Law S, Arcilla C, Chu KM, et al. The significance of histologically infiltrated resection margin after esophagectomy for esophageal cancer. *Am J Surg.*, 1998; 176: 286–290.

6. Mariette C, Castel B, Balon JM, et al. Extent of oesophageal resection for adenocarcinoma of the oesophagogastric junction. *Eur J Surg Oncol.*, 2003; 29: 588–593.
7. Mattioli S, Di Simone MP, Ferruzzi L, et al. Surgical therapy for adenocarcinoma of the cardia: modalities of recurrence and extension of resection. *Dis Esophagus*, 2001; 14: 104–109.
8. Siewert JR, Feith M, Werner M, et al. Adenocarcinoma of the esophagogastric junction: Results of surgical therapy based on anatomical/topographic classification in 1,002 consecutive patients. *Ann Surg.*, 2000; 232: 353–361.
9. Siewert JR, Stein HJ. Classification of adenocarcinoma of the oesophagogastric junction. *Br J Surg.*, 1998; 85: 1457–1459.
10. Sihvo EI, Luostarinen ME, Salo JA. Fate of patients with adenocarcinoma of the esophagus and the esophagogastric junction: A population-based analysis. *Am J Gastroenterol.*, 2004; 99: 419–424.
11. Tsujitani S, Okuyama T, Orita H, et al. Margins of resection of the esophagus for gastric cancer with esophageal invasion. *Hepatogastroenterology*, 1995; 42: 873–877.