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## Published In/Presented At

Patek, B., Shah, H., Shah, S. (2015, October 16). *Primary Esophageal Adenocarcinoma With Colon Metastases After Esophagectomy*.

Poster presented at: American College of Gastroenterology annual conference 2015, Honolulu, HI.

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# Primary Esophageal Adenocarcinoma With Colon Metastases After Esophagectomy

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## Background

- Esophageal carcinoma is an aggressive cancer with worldwide predominance of squamous cell variety, but more commonly, adenocarcinoma (AC) in the United States.
- Pathophysiology of adenocarcinoma may be linked to oxidative damage in the distal third esophagus created from a plethora of risk factors (Table 1) that cause inflammation leading to increased cell turnover and possible initiation of a carcinogenic process.<sup>1</sup>
- Presenting symptoms include dysphagia, odynophagia, weight loss with >10% body mass a poor prognostic indicator.<sup>1</sup>
  - Extensive disease can involve hoarseness, cough, dyspnea and back pain.<sup>1</sup>
- Metastatic disease often presents in lung, bone, liver, adrenal glands and rarely in spleen, stomach pancreas, small bowel and least the colon.<sup>1-2</sup>

Risk Factors		Protective Factors
Obesity	Gender - Male	Proton pump inhibitors
Reflux symptoms	Caucasian race > African American	NSAIDs/Aspirin
Barrett's esophagus	Genetics	Statin medication
Tobacco use	Age	
History of chest radiation	Hiatal hernia	
Western Europe, United States of America, Australia	Medications to lower esophageal sphincter tone	

## Case Presentation

- A 70 year-old male smoker presents with dysphagia and twenty pound weight loss in 4 weeks.
- Esophagogastroduodenoscopy (EGD) (Image 1) and endoscopic ultrasound (EUS) reveal nearly occlusive, friable mass invading the muscularis propria with celiac lymphadenopathy.
- Biopsies confirm invasive, poorly differentiated AC, a T2N1 stage IIB disease based on EUS. Concomitant chemoradiation with carboplatin and paclitaxel was initiated.
- Esophagectomy with negative margins performed with staging modified to T2N2 stage IIIA with 4/14 lymph nodes cancerous.
- Routine CT scan four months later with enlarged para-aortic lymphadenopathy and liver lesions (Image 2), confirmed with PET scan. Colonoscopy exposed nodules throughout colon (Image 3) with biopsies consistent with primary esophageal AC (Table 2) despite negative PET uptake.
- Colon nodules and liver lesion after biopsy, deemed consistent as metastatic disease from previous esophageal adenocarcinoma.

## Images

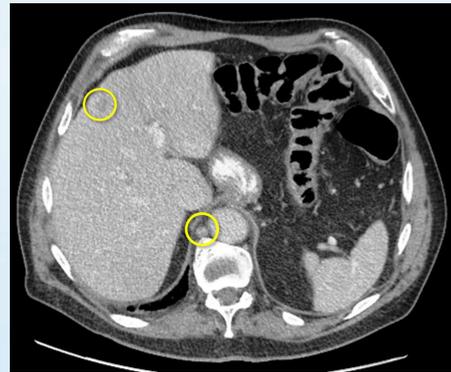


Image 2. Routine follow up CT abdomen status post esophagectomy 4 months prior showing a hypodense liver lesion with increasing para-aortic lymphadenopathy.

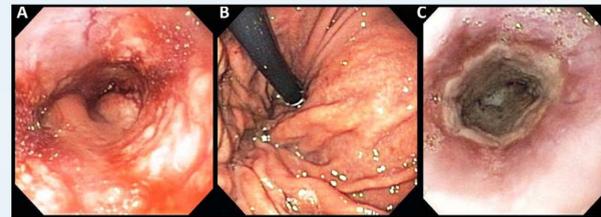


Image 1. EGD performed for weight loss and dysphagia revealing friable, nearly circumferential obstructing mass at 35cm in the distal esophagus (A). Mass was seen involving the cardia (B) and biopsy confirmed poorly differentiated adenocarcinoma with signet cells. Stent prior to surgical intervention was placed (C), but later removed due to continuous chest discomfort.



Image 3. Multiple inflamed polyps found throughout the colon with biopsies suggestive of poorly differentiated adenocarcinoma with signet cells with similar immunohistochemical features as primary esophageal adenocarcinoma.

## Discussion:

- Primary esophageal AC presents with advanced disease resulting in the likelihood of metastatic disease.<sup>1</sup>
- Metastatic spread within the gastrointestinal tract is rare, specifically in the colon.
  - More common of esophageal squamous cell carcinoma metastasizing to colon, which can be explained by higher prevalence of disease worldwide.<sup>4</sup>
- A challenge in this case is to link colon polyps with the initial primary, as treatment will differ.
  - Colon polyps offer no differentiation from primary or secondary cancers.
  - No distinctive appearance on imaging or endoscopy.<sup>4</sup>
- Most nodules are asymptomatic and could be developing at the same time as the esophageal carcinoma.
  - Focal colonic FDG uptake typically can be seen on PET scan for areas concerning for cancer, but not in this patient.<sup>5</sup>
  - When colonic metastases are present, this may signify a more aggressive disease process.
- Treatment is based on the primary cancer with chemoradiation and surgical resection if applicable.

	Esophageal Mass	Liver Lesion	Colon Polyps
Positive	CK7 CDX-2 CA19-9	CK7 CK20 CA19-9 COX-2 CDX-2	CD7 CD20 CDX-2 CA19-9
Negative		CD56 TTF-1 HER2 HepPar-1	CD56 Synaptophysin

## References:

- Enzinger, Peter, and Robert Mayer. "Esophageal Cancer." *New England Journal of Medicine* 349.23 (2003): 2241-252.
- Hasegawa, Hiroshi, et al. "Colon Metastasis after Resection of Primary Esophageal Squamous Cell Carcinoma: Report of a Case." *Esophagus* (2014).
- Arnal, Maria, Angel Arenas, and Angel Arbeloa. "Esophageal Cancer: Risk Factors, Screening and Endoscopic Treatment in Western and Eastern Countries." *World Journal of Gastroenterology* 21.26 (2015): 7933-943.
- Iwase, Hiroaki, Toshihiko Indo, et al. "Esophageal Cancer with Colonic Metastasis Successfully Treated by Chemoradiotherapy Followed by Chemotherapy with S-1 and Cisplatin." *Int J Clin Oncol International Journal of Clinical Oncology* 9.5 (2004): 398-402.
- Liu, Tianye, Robert Osterhoff, et al. "Focal Colonic FDG Activity with PET/CT: Guidelines for Recommendation of Colonoscopy." *World J Nucl Med World Journal of Nuclear Medicine* 14.1 (2015): 25. Liu, Tianye, Robert Osterhoff, et al. "Focal Colonic FDG Activity with PET/CT: Guidelines for Recommendation of Colonoscopy." *World J Nucl Med World Journal of Nuclear Medicine* 14.1 (2015): 25.

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