Case Scenario 1

Radiation Oncology Chart

History

A 67 year old white male presents with dysphagia, a 25-30 pound weight loss, odynophagia. His past medical history includes hypertension. The patient is a smoker. No family history of cancer. Findings from an EGD on January 23, 2012 were normal until about 35 cm from the incisors. At this point a 4 to 4.5 cm mass with ulcerated surface originating on the anterior wall of the esophagus and extending from approximately 33 cm down to 37 cm at the level of the GE junction. GE junction was at 37 cm from the incisors. The cardia and fundus otherwise were unremarkable. The body, antrum, and angularis system appeared grossly normal. On entering the pylorus, duodenal bulb, and second portion of the duodenum appeared normal. A biopsy of the mass was positive for invasive poorly differentiated squamous cell carcinoma.

A PET/CT showed the lesion in the distal esophagus measured with apparent invasion into the surrounding adventitia. Also noted were multiple enlarged mediastinal lymph nodes and bilateral hilar lymph nodes.

Based on these findings neoadjuvant concurrent chemoradiation followed by a transhiatal esophagectomy were recommended.

Radiation Therapy:

Squamous cell carcinoma of the lower third of the esophagus at the GE junction, stage III T2-3 N2.

The patient received systemic chemotherapy from Dr. and did require hospitalization and colony-stimulating factors as a result of that. He tolerated the radiotherapy well. Radiation was initiated on February 8, 2012 and continued through April 3, 2012, over 54 elapsed calendar days. The patient received a total dose of 50.4 Gy in 28 fractions, 1.8 Gy each, delivered with 18 MV photons and custom blocking. The initial 20 fractions delivered 36 Gy using an AP-PA + IMRT technique with custom blocking. He subsequently underwent a 3 field boost using an IMRT + AP, as well as LPO and RPO, fields to deliver a boost dose of 14.4 Gy in 8 fractions.

Chemo: cisplatin at a dose of a 100 mg/m2 as well as 5-FU/800 mg/m2 days 1 through 4 every 3 weeks for a total of 3 cycles during radiation.

Operative Report

1. Transhiatal esophagogastrectomy.
2. Red rubber catheter jejunostomy.

Pathology Report-Final Diagnosis

- Distal esophagus and portion of proximal stomach
    - Ulceration, fibrosis, keratinous material and dystrophic calcifications, consistent with prior neoadjuvant chemoradiation therapy
    - No evidence of residual viable malignancy
    - All margins free from malignancy
    - No tumor seen in 3 of 3 lymph nodes
- Esophagus-proximal stale line excision:
    - Negative for malignancy

- **What is the primary site?**
- **What is the histology?**
- **What is the grade/differentiation?**
- **What is grade path system/grade path value?**

Stage/ Prognostic Factors

CS Tumor Size		CS SSF 9	
CS Extension		CS SSF 10	
CS Tumor Size/Ext Eval		CS SSF 11	
CS Lymph Nodes		CS SSF 12	
CS Lymph Nodes Eval		CS SSF 13	
Regional Nodes Positive		CS SSF 14	
Regional Nodes Examined		CS SSF 15	
CS Mets at Dx		CS SSF 16	
CS Mets Eval		CS SSF 17	
CS SSF 1		CS SSF 18	
CS SSF 2		CS SSF 19	
CS SSF 3		CS SSF 20	
CS SSF 4		CS SSF 21	
CS SSF 5		CS SSF 22	
CS SSF 6		CS SSF 23	
CS SSF 7		CS SSF 24	
CS SSF 8		CS SSF 25	

Treatment

Diagnostic Staging Procedure			
Surgery Codes		**Radiation Codes**	
Surgical Procedure of Primary Site		Radiation Treatment Volume	
Scope of Regional Lymph Node Surgery		Regional Treatment Modality	
Surgical Procedure/ Other Site		Regional Dose	
Systemic Therapy Codes		Boost Treatment Modality	
Chemotherapy		Boost Dose	
Hormone Therapy		Number of Treatments to Volume	
Immunotherapy		Reason No Radiation	
Hematologic Transplant/Endocrine Procedure		Radiation/Surgery Sequence	
Systemic/Surgery Sequence			

Case Scenario 2

A 70 year old white female presented with acute anemia. Her past medical history includes GERD and hypotension. Her most recent CEA was elevated (32.4 ng/ml).

Operative Report: EGD

Oral cavity reveals a full set of teeth. Palpation is normal. Vocal cords and hypopharynx are normal. She is a short person and the esophagogastric junction was at 35cm from her incisors. I did not appreciate a hiatus hernia from above or below, but just inside the stomach and starting at the lesser curvature and extending for at least 5-8 cm is necrotic looking ulceration. This area is firm, certainly not supple and it was photographed and biopsied and I suspect that this is a form of cancer. Biopsies were taken for Helicobacter both in the antrum and the cardia. The pylorus, duodenal bulb, first and second portions of duodenum were normal.

Pathology Report

Stomach Biopsy-Final Diagnosis

- Invasive poorly differentiated adenocarcinoma with signet ring features

PET/CT

Abnormally increased FDG accumulation within several lymph nodes in the gastrohepatic ligament. Although somewhat nonspecific, the findings are suspicious for malignant involvement of these lymph nodes.

Operative report

A 70 year old white female with adenocarcinoma of her stomach presents status post ECF neoadjuvant therapy for complete gastrectomy. The point of primary tumor was in the superior half of the lesser curve in the stomach. Unfortunately, the entire lesser curve was involved with tumor and to get a clear proximal margin, I had to divide the gastroesophageal junction. There were also some enlarged nodes along the gastrohepatic ligament. A wedge biopsy of a suspicious liver nodule was also performed.

Pathology Report

Procedure

Total Gastrectomy and liver wedge resection

Final Diagnosis

- Liver nodule, Wedge biopsy:
  - Negative for malignancy
- Stomach Total Gastrectomy:
  - Histologic tumor type: Invasive poorly differentiated adenocarcinoma with signet ring features
  - Tumor site: The tumor is centered in the gastric body
  - Tumor Size: 7.0 x 3.5 x 1.8
  - Histologic Grade: 3 of 4
  - Microscopic extent of tumor: Tumor invades subserosal connective tissue without penetration of the visceral peritoneum
  - Lymphovascular invasion: extensive lymphovascular invasion is present
  - Perineural invasion: present
  - Margins: Tumor is present within lymphovascular spaces at both the proximal and distal margins. No tissue invasion is present at the margin. The omentum is negative for tumor.
- Lymph Nodes:
  - Multiple, 3 of 3 greater curvature lymph nodes are positive for metastatic carcinoma
  - Multiple, 7 of 7 lesser curvature lymph nodes are positive for metastatic carcinoma
  - Multiple, 5 of 7 perigastric lymph nodes are positive for metastatic carcinoma

Pathologic TNM Stage: AJCC pT3 N3a

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