



# **77 Year Old Female with Cancer of the Esophagus and Right Upper Lobe Mass**

## **A Thoracic Surgery Case Study**

by

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### **Patient Presentation**

A 77 year old female presented to her primary care physician complaining of “progressive difficulty swallowing over the last year.” The patient experienced no weight loss, hematemesis or melena and was not sure she even needed to seek medical care. Esophagoscopy delineated a signet cell carcinoma of the esophagus at the esophago-gastric junction, and the patient was referred for surgical consideration.

### **Preoperative Evaluation**

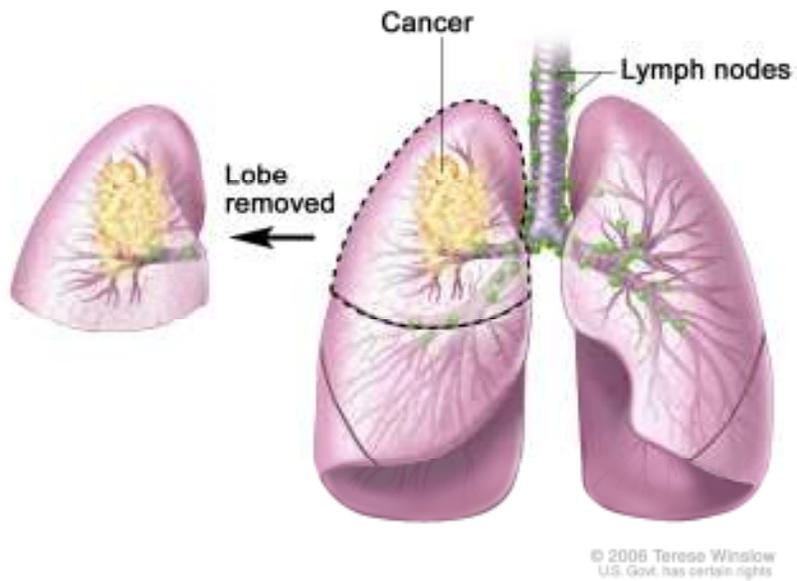
The patient then underwent a CT scan of the chest with contrast, a barium esophagram, complete pulmonary functions and an adenosine thallium, cardiac stress test.

- The patient’s esophagram revealed a small sliding hiatal hernia and mild gastroesophageal irregularity.
- The adenosine thallium stress test was normal, as were the pulmonary functions.
- The CT was abnormal with irregular thickening in the esophago-gastric (EG) junction and an unexpected mass was noted in the right upper lobe of the lung.
- Based on the results of the CT scan, the patient underwent a PET scan which revealed a hypermetabolic right upper lobe lung mass, highly suspicious for malignancy, but fortunately no evidence of pathologic uptake either in the draining lymph nodes of the chest, distal esophagus, nor anywhere else in the body.

## **Operative Steps - Surgery #1**

Using right video-assisted thoracic surgery (VATS), a complete right upper lobectomy and mediastinal lymphadenectomy were performed.

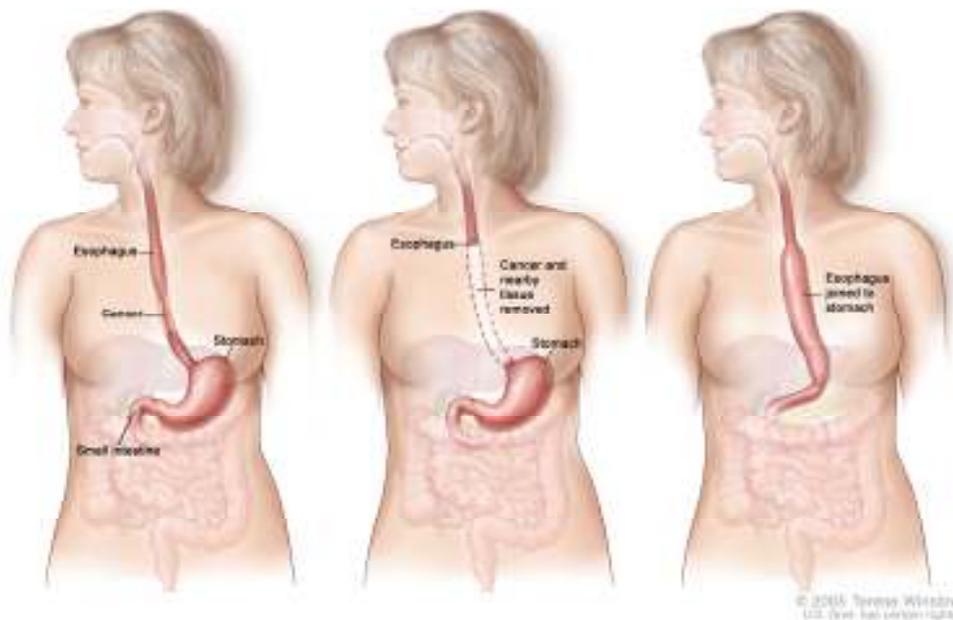
- Final pathology revealed malignancy. All nodes were negative.
- The patient was discharged to home post-operative day three.



## **Operative Steps - Surgery #2**

Five weeks after the first surgery, transhiatal esophagogastrectomy - resection of the involved esophagus and stomach - was performed.

- Final pathology revealed stage 1 cancer – again, no nodal involvement.
- The patient’s recovery was uncomplicated, and she was discharged directly home post-operative day ten, following this much more serious surgery.



## **Discussion**

Several items were taken into consideration in determining the appropriate course of treatment for this patient, most importantly the patient's performance (cardio-pulmonary) status. As well, because a previous biopsy was definitive for esophageal cancer, it was important to know if the lung mass was metastatic or not; that pathology would dictate the next steps in treatment. For example, were the lung mass to be metastatic from the esophageal malignancy (stage IV disease), palliative chemoradiotherapy might have been the next step. In addition, lobectomy is, in general, an easier operation from which to recover than esophageal resection. Thus, performing lobectomy first would remove the upper lobe malignancy and reveal the stage of disease, allowing expeditious recovery, should a second operation be necessary, as it was.

After careful consideration and discussion with the patient and oncologist, it was decided that the second surgery (esophagogastrectomy) would take place prior to, rather than following, chemotherapy and/or radiation therapy (CoRoRx), primarily because the EG junction cancer was thought to be early stage (I) and an early stage cancer would likely be amenable to curative-intent, up-front resection. As well, even though the patient was of good performance status, lumping preoperative CoRoRx therapy on top of pulmonary lobectomy in a 77 year old patient was not deemed optimal by her care team. An overly aggressive, multi-modal therapy may have left the patient too weak to tolerate another operation.

It is important to note that preoperative CoRoRx is helpful prior to surgery for advanced stage cancers (II–IV). Our own published experience with surgery for esophageal cancer (1990-2007) demonstrates that while up-front surgery is ideal for stage I disease, anything more advanced significantly benefits from neo-adjuvant (preoperative) CoRoRx followed by surgical resection because the preoperative therapy allows for “down staging” the disease. In fact, such “down staging” has resulted in complete eradication of disease in 32% of patients, allowing much improved survival.

In the case at hand, the patient's outcomes in both surgeries met or exceeded the most optimistic expectations. The patient was expected to spend four to six days in the hospital following lobectomy, yet returned home day three following surgery. Prior to the second surgery, the patient indicated a desire to go to rehabilitation once discharged from the hospital, post-esophagogastrectomy. In fact, as the patient's recovery was entirely untroubled, the patient requested and was discharged to home post-operative day ten. No rehabilitation was necessary. The patient did so well that six weeks later she requested limited, adjuvant (post-operative) chemotherapy in order to further minimize the risk for any recurrence.