

Lung Squamous Cell Carcinoma Nodal Metastasis to the Celiac Trunk: Anarchy?

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Abstract

Background:The association between lung and gastric cancer is well described in smokers or persons exposed to asbestos. Finding infiltration by lung cancer cells in the gastric lymphatic drainage area is not a common situation. The description of a case like this one is very interesting for medical practice as it defies all logical explanation.**Material and Method:**We report a case of an adult patient diagnosed with stomach cancer with suspected lymph node metastasis of a previously operated lung cancer.**Results:**In the gastric lymphadenectomy specimen, lung cancer metastatic cells were found.**Conclusions:**There are distinct patterns of metastatic lymphatic spread based on location of the primary tumors. In this case, metastatic cells have not followed the logical anatomical pathways. This is a very important fact when a new malignant tumor appears in a patient with a previously resected cancer; even if its origin is completely different.

CASE REPORT

We report a case which is considered to be of special interest because of its unique characteristics. The patient was a 68-year-old male with a history of smoking who had undergone surgery for a non-small cell bronchogenic carcinoma five years before, prostatectomy, appendectomy, and cholecystectomy. The resected lung tumor was in the left upper lobe and was staged as T2N2M0 after surgery. Adjuvant radiation therapy and chemotherapy were also required.

A CT scan of the chest and abdomen performed at a routine control in the thoracic surgery outpatient clinic revealed gastric body thickening, as well as suspected tumor implants in the gastrohepatic ligament (figure 1). 3D volumetric image reconstruction gave more details of the lesion and was used as a preoperative surgical planning tool (figures 2 and 3). The PET provided information on the evidence of pathological captation at the gastric and perigastric area. The patient was therefore admitted to the internal medicine department for work-up.

Figure 1

Figure 1. Routine CT.

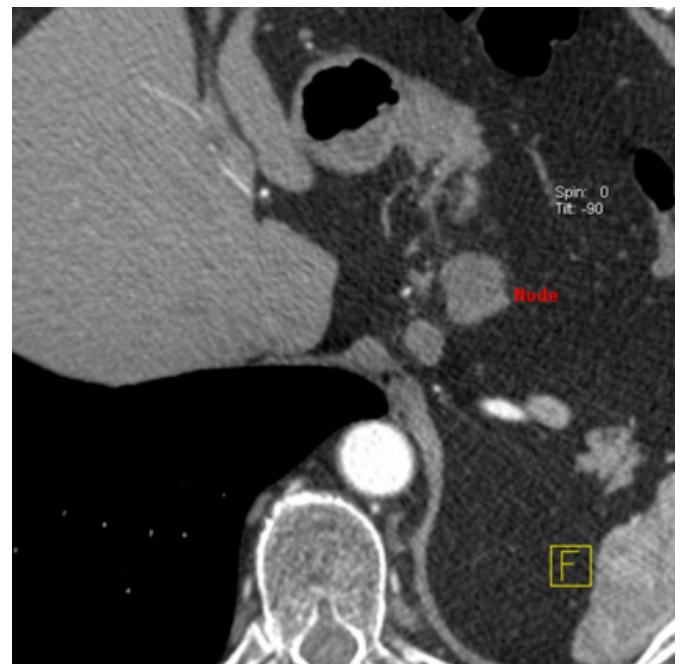


Figure 2

Figure 2. 3D volumetric image reconstruction.

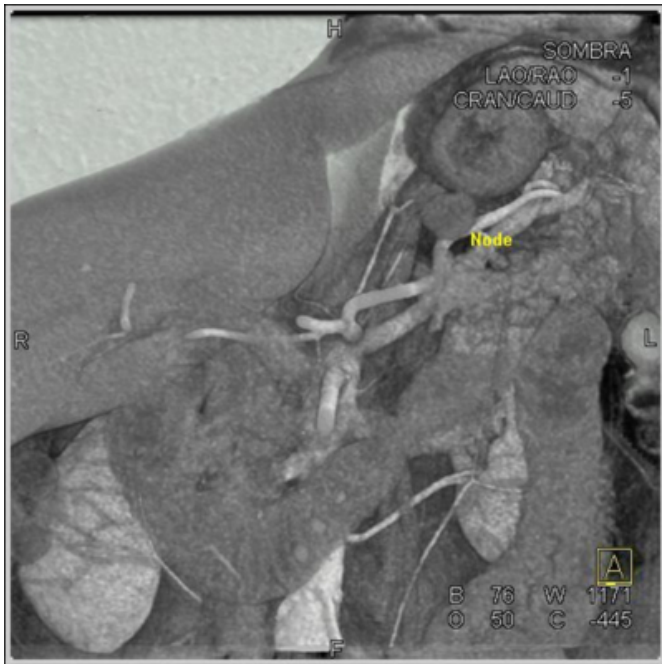
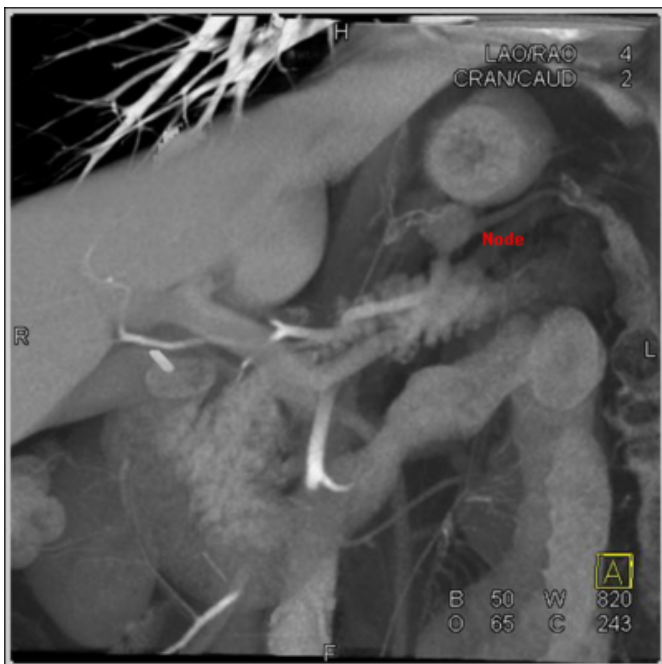


Figure 3

Figure 3. 3D volumetric image reconstruction.



A gastroscopy documented the presence of a well-differentiated intestinal adenocarcinoma in the gastric body, thus completing the extension study.

The patient was therefore referred to the general surgery department, where elective surgery was performed. A gastric body tumor and nodes in the gastrohepatic ligament and the

root of the left gastric artery were found during surgery. The surgical procedure consisted of total gastrectomy with D2 lymphadenectomy and Roux-en-Y reconstruction.

Surprisingly, the pathological report suggested lymphatic dissemination of adenocarcinoma in an adenopathy of the lesser curvature and infiltration of the territory of the left gastric artery by epidermoid carcinoma which, based on markers, would come from the lung tumor resected five years before.

Presence of disseminated disease in lung tumors at infradiaphragmatic lymphatic level is an uncommon finding¹. The findings are not justified by anatomical distribution of such drainage, and even less in the left upper lobe⁷. Nodal metastases of an epidermoid origin have been reported in gastric cancer, but in the setting of a synchronous esophageal or oral tumor^{6,2}. In this case, cells were found to be positive for markers suggesting a non-gastrointestinal origin.

There are isolated reports of documented lymphatic communications between para-aortic and hilar territories⁸, which would speak in favor of the lymphatic route in pulmonary dissemination of abdominal tumors. In the described setting, the situation would be the opposite: migration of bronchial cells to the gastric drainage territory^{1,3}.

Synchrony or metachrony of lung and gastrointestinal tumors appears to be more common in smokers and people exposed to asbestos⁴. Our patient had no history of exposure to carcinogenic substances other than tobacco. It should also be noted that the lesion was clinically silent and was incidentally found during surgery for another condition, which has already been reported in publications in the radiographic field⁵.

It should be noted that lymphatic dissemination of lung cancer is sometimes anarchic, and tumor cells evade the classical anatomical routes. As suggested by this report, evidence of extragastrointestinal cancer is a rare but not impossible finding during lymphadenectomy of an abdominal organ.

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