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Small bowel perforation due to metastatic pleomorphic lung cancer☆

Metástasis de carcinoma pulmonar pleomórfico como causa de abdomen agudo

To the Editor,

Lung cancer is a neoplasm with high mortality, responsible for more than 20% of deaths per year in European countries.[1] It is the most frequent cause of cancer death in western men, with a 5-year survival of 7.9%.[2] Sarcomatoid tumors account for only 0.3%–1.3% of lung cancers, with an even lower prevalence of pleomorphic carcinoma.[3]

Lung cancer metastases to the digestive tract are rare, with an incidence varying from 2% to 14% in some autopsy series.[4] These metastases normally do not become apparent until complications such as bleeding, bowel obstruction, or perforation occur. Once this happens, the prognosis and survival worsen. We present the case of a 71-year-old man, a former smoker of 100 pack-years up to 5 years ago, with a history of hypertension, diabetes and chronic obstructive pulmonary disease, who underwent emergency surgery for symptoms of bowel obstruction inthe postoperative period following lung resection for suspected cT4N0M0 lung cancer. He presented a complete study carried out 6–8 weeks prior to the surgery: fibrobronchoscopy, functional tests, chest-abdominal computed tomography (CT) and positron emission tomography (PET)/CT, where a nodule was found in the left upper lobe (LUL) and another in the left lower lobe (LLL), with no evidence of extrathoracic disease. Endobronchial ultrasound (EBUS) was negative for malignancy. Left lower lobectomy and atypical resection of the nodule were performed in the LUL by video-assisted thoracoscopic surgery (VATS), accompanied by lymphadenectomy of the hilar regions[5–7] and pulmonary ligament.

On postoperative day 4, the patient presented symptoms of intestinal obstruction. Urgent abdominal CT revealed a perforated obstructive mass at the level of the ileum (Fig. 1A) requiring emergency surgery, where we found peritonitis located in the right iliac fossa and intussusception caused by a 12-cm perforated necrotic mass located in the terminal ileum (Fig. 1B). Numerous reactive adenopathies were also found in the adjacent mesoileum, requiring peritoneal lavage, tumor resection and ileal anastomosis for transit reconstruction. Postoperative recovery was

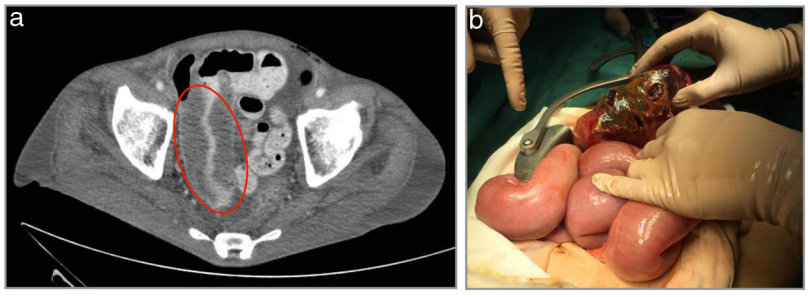

Figure 1. a) CT slice showing the scan of the lung cancer tumor mass responsible for intussusception and subsequent perforation. b) Intraoperative Image of the tumor showing intestinal perforation.

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uneventful, and the patient was discharged on postoperative day 7. Histopathological analysis of the abdominal tumor confirmed the diagnosis of a 12-cm pleomorphic lung cancer metastasis (pT2bN0M1b).

Finally, after histological analysis of the lung lesions, it was concluded that they were 2 synchronous tumors: LUL squamous cell carcinoma (pT1bN0) and LLL giant cell pleomorphic carcinoma (pT2bN0M1b). McNeill et al. and Berger et al. conducted studies with a total of 1975 lung cancer patients, where only 0.5% and 0.1%, respectively, showed intestinal symptoms due to metastases.[4,5] Studies such as the one by Ito et al. based on the behavior of pleomorphic lung carcinoma in 22 patients showed metastases in up to 10 of them (45%) in the course of follow-up.[6]

Bowel metastases should be considered in the differential diagnosis of patients with lung cancer and gastrointestinal symptoms, with a higher degree of suspicion in cases of pleomorphic carcinoma.

Urgent surgical treatment seeks to improve prognosis and short-term survival.

The interest of this case lies not only in the diagnosis of the intestinal metastasis itself, but in the false negative of the extension study—completed 6 weeks before the surgery—that unusually did not show the abdominal lesion, which would have changed the initial therapeutic strategy. This could be attributed to the aggressiveness described in this histological lineage.[7,8]

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Surgical Treatment of Chylothorax After Lung Transplantation for Lymphangioleiomyomatosis☆

Tratamiento quirúrgico de quilotórax postrasplante pulmonar por linfangioleiomiomatosis

To the Editor,

We present the case of a 64-year-old woman who had undergone single right lung transplantation for lymphangioleiomyomatosis (LAM), with no intraoperative or immediate postoperative complications. On postoperative day 7, pleural fluid drainage was milky in appearance, with exudative lymphocytic characteristics and triglycerides 630 mg/dL, and she was therefore diagnosed with right chylothorax. Dietary treatment was established with enteral nutrition, medium chain triglycerides and octeotride for one week. However, given the persistence of the chylothorax (Fig. 1B), surgical treatment was indicated.

One hour before the surgical procedure, an oral solution of milk with butter was administered to enable macroscopic localization of the chylous fistula during the surgery. After dissection of the paraesophageal and periaortic space, a chylous fistula was located in the thoracic duct and its afferent vessels (Fig. 1A); these were ligated and hemostatic surface sealants were applied. The patient recovered well, with complete resolution of the chylothorax, and was in good health 12 months after the surgery.

LAM is a rare multisystem disease that predominantly affects women, and is classified as a low-grade neoplastic disease. It is characterized by progressive respiratory failure, recurrent pneumothorax, renal angiomyolipomas, and lymphatic disease (chylothorax, chylous ascites or lymphangioleimiomas).[1,2]

Radiologically, it is characterized by the presence of multiple round, thin-walled interstitial cysts.[3] According to the European Respiratory Society, the diagnosis of LAM is established when characteristic radiological findings are present, associated with renal angiomyolipomas, chylothorax, chylous ascites, lymphangiomyolipoma or adenomegaly.[4] In the absence of these, lung biopsy is recommended.

Lung transplantation is indicated in advanced stages of the disease, refractory to medical treatment, with 65% survival at 5 years post-transplantation, accounting for only 1% of the indications for lung transplantation according to the International Registry.[5]

Between 7% and 10% of patients with LAM develop chylothorax, which should be treated promptly since it leads to malnutrition, immunosuppression, respiratory and metabolic failure, and electrolyte imbalance, which can be fatal.[6]

In our case, the diagnosis was suspected after changes were noted in the macroscopic characteristics of the pleural drainage fluid, which coincided with the start of oral tolerance, and was confirmed by the determination of triglycerides in the pleural exudate. Treatment with a fat-free diet, medium chain triglycerides and octeotride was initiated to reduce gastrointestinal secretions and splanchnic blood flow.[7,8] Sirolimus has also demonstrated effectiveness in the control of chylothorax,[9] but was not used in our particular case due to risks in the healing process after recent surgery. However, conservative measures were not sufficient, suggesting the presence of a considerably large opening in the thoracic duct. For this reason, revision surgery was indicated.

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