Clinics in Surgery

Case Report
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Case Report: VATS Sleeve Lobectomy + Contralateral LVRS

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Abstract

Central lung cancer was detected in a lung volume reduction surgery candidate. Induction treatment helped making VATS sleeve lobectomy and simultaneous contralateral LVRS possible, with good immediate result. Ulterior oncological evolution is discussed.

Keywords: VATS Sleeve Lobectomy; LVRS; Neoadjuvant Induction treatment

Introduction

Previously undiagnosed central lung cancer was detected in a poor functional candidate referred for LVRS.

Case Presentation

H.A.: 59 y/o man, heavy smoker (110 p/y).

Left lung pneumonia in 2005 requiring Respiratory Mechanical Assistance during 15 days.

Referred in April 2011 by his Pneumonologist for Lung Reduction Volume (FEV1: 25%).

His chest X-rays showed an unusual left para-mediastinal line that was interpreted as a possible LUL atelectasis (Figure 1). CT scan confirmed the lesion that was absent in a previous (January 2011) CT scan (Figure 2). PET-CT showed hilar activity as the only abnormal corporal finding (Figure 3).

Bronchofiberscopy showed an endobronchial mass completely occluding LUL bronchus and

Figure 1: Chest X-rays.

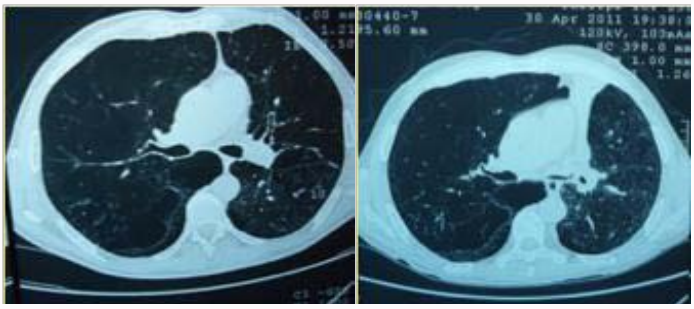

Figure 2: CT scan.

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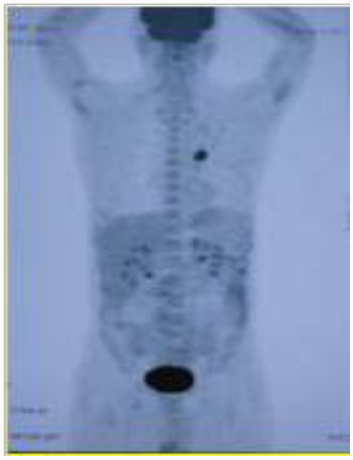

Figure 3: PET-CT.

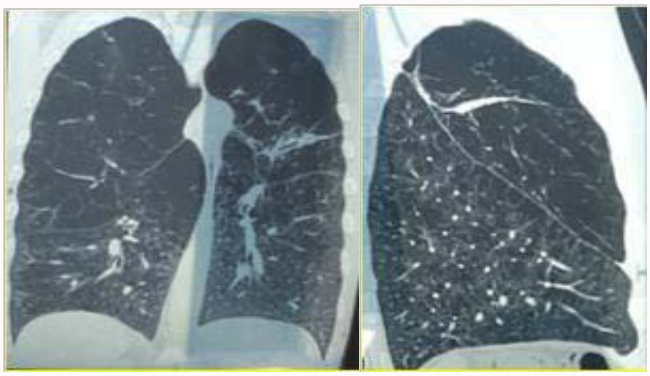

Figure 4: Chest X-rays showed complete ventilation of LUL.

Figure 5: Postoperative re-shaping of both lungs.

advancing 2 cm toward main left bronchus. Pathology was informed as squamous cells carcinoma.

A controversial oncological consultation finally accepted to submit the patient to 2 cycles of Cysplatin/Gemcitavine treatment (as surgeons, we wanted to be sure about response and tolerance of chemotherapy in this high-risk patient who would need adjuvant treatment on account of his central tumor in case of surgical resection). At the same time his rehabilitation program was increased.

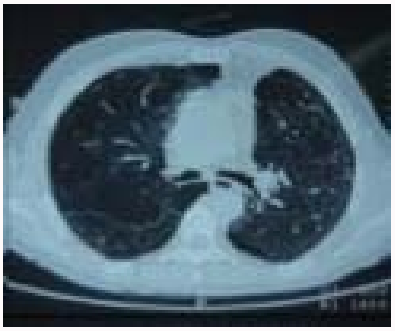

Figure 6: CT scan.

Three months after he came back to our surgical consultation with a worst respiratory performance and some haemoptoic expectoration. We interpreted it as the positive result of drugs treatment.

Chest X-rays showed complete ventilation of LUL (Figure 4). Bronchofiberscopy confirmed that the tumor had moved back to the ostium of true LUL leaving a free lingular bronchus that slightly bled with the instrument contact.

Surgery was then proposed. Left Upper Lobe Video-Assisted Sleeve Lobectomy and contralateral upper lung reduction surgery were performed on August 2011. The patient was discharged at the 4th PO day. Pathology diagnosed squamous cell carcinoma with free section surgical borders and free from metastasis nodes from groups 5, 6, 7, 10 and 11 (T2N0M0).

Figure 5 shows postoperative re-shaping of both lungs. FVC changed from 66% to 87% and FEV1 from 32% to 62% one month postoperatively.

The patient returned to his normal activity traveling overseas during a year. He then came for re-evaluation and even when CT scan didn't show clear hilar or mediastinal abnormal lesions (Figure 6) we performed bronchofiberscopy detecting a suspicious area at the suture line of the left sleeve lobectomy. Even though small biopsies taked there were negative, we performed open bronchoscopy with larger specimens demonstrating local recurrence of squamous cell carcinoma.

EBUS showed a 1 cm diameter superficial mucosal and submucosal non penetrating lesion and an isolated 1.5 cm lymph node adjacent to the anastomotic line. On account of the low respiratory performance, we decided to treat the patient with brachytherapy. He tolerated it well but was lost to our personal follow-up.

One year after he died from a lung infection while suffering from distant metastasis.

Discussion and Conclusion

Video assisted thoracic surgery makes limited lung resections possible in patients with very low functional status. Lung volume reduction surgery can be added in special cases with good functional results.

Local recurrence of tumors at the anastomotic line can appear even after a negative intra-operative and delayed Pathology examination.