CASE REPORT

# Esophageal Stricture Caused by ALK-Positive NSCLC Esophageal Metastasis Resolved After a Few Days of Lorlatinib Therapy Without Stent Placement

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Metastasis to the esophagus from a distant primary location is a rare manifestation in patients with NSCLC presenting with obstructive upper gastrointestinal symptoms. Oftentimes, the placement of a stent across the stricture provides a partial resolution of the symptoms.[1,2] Here, we report a case of esophageal stricture by metastasis from a distant ALK-positive NSCLC that occurred in a 55-year-old man during alectinib therapy, with a fast resolution after a few days of lorlatinib therapy without a stent placement. The patient was diagnosed as having ALK-positive metastatic NSCLC in October 2018. He started alectinib therapy in November 2018. Approximately 13 months after the patient started taking alectinib, he developed retrosternal chest pain and progressive dysphagia. He then underwent esophagogastroduodenoscopy, which revealed a vegetation in the middle third of the esophagus, mimicking an esophageal primary tumor, with an obstruction that prevented further passage of the scope (Fig. 1*A*). Endoscopic biopsy of the submucosa yielded malignant cells that were positive for thyroid transcription factor-1, which was suggestive of primary lung cancer. Computed tomography excluded the stricture from being secondary to esophageal invasion, a compression from a contiguous tumor, or a lymph node involvement (Fig. 2*A* and *B*). Alectinib was discontinued after considering the lesion as a direct metastasis to the esophagus from the known NSCLC, and also because of the rapid development of clinical symptoms. The patient was then promptly switched to lorlatinib. After the first day of lorlatinib therapy, the patient reported an improvement of the dysphagia; complete resolution of the symptoms was achieved after 5 days of therapy. Therefore, the placement of a stent was avoided. An esophagogastroduodenoscopy performed 14 days after the start of lorlatinib revealed a scar without macroscopic residual tumor (Fig. 1*B*). Detection of *ALK* rearrangement by immunohistochemistry of the endoscopic biopsy confirmed the diagnosis of ALK-positive NSCLC. Interestingly, the next-generation sequencing done on the esophageal metastasis revealed an L1196Q mutation (Fig. 3), which might explain the progression during alectinib therapy.[3,4]

## Discussion

Lorlatinib is a third-generation ALK inhibitor that is able to overcome several mechanisms of resistance and is also characterized by high brain penetration. An objective response has been reported after progression to two or more tyrosine kinase inhibitors with or

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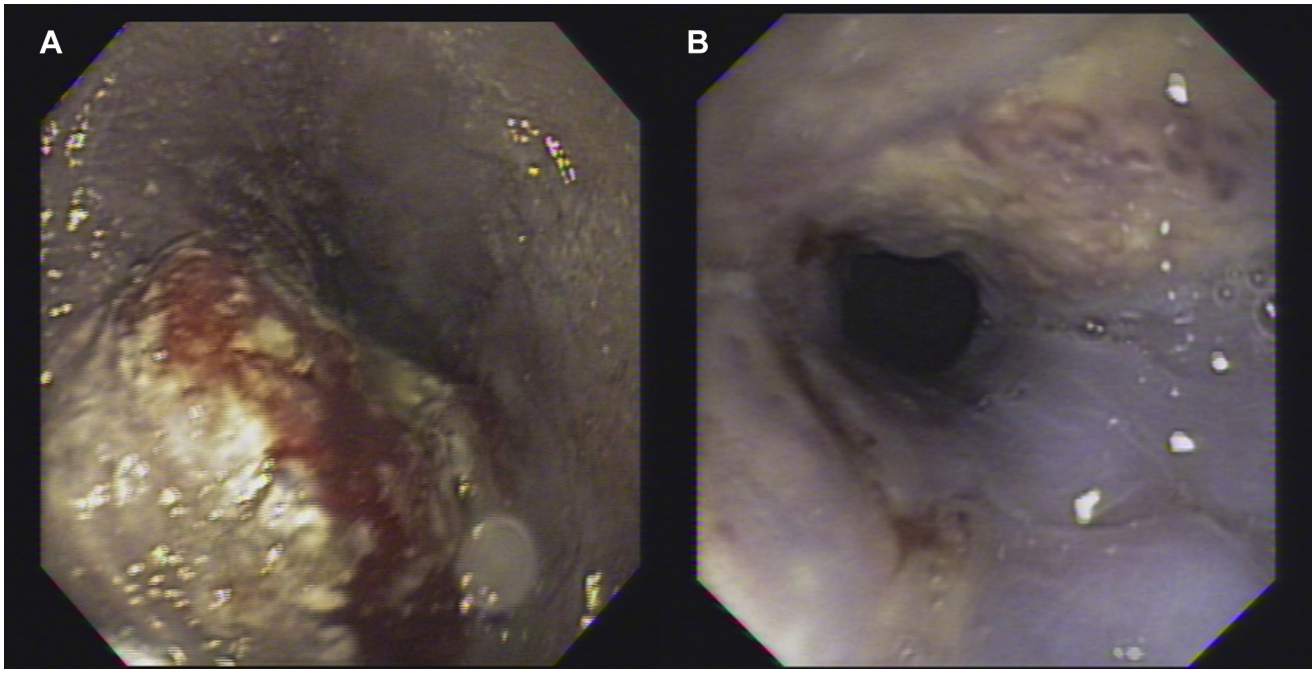


**Figure 1.** *(A)* The first esophagogastroduodenoscopy revealing a vegetation at the middle third of the esophagus, with an obstruction that prevented further passage of the scope. *(B)* The esophagogastroduodenoscopy performed 14 days after the start of lorlatinib, revealing a scar without macroscopic residual tumor.

without previous chemotherapy.[5] In this clinical case, we also reported another potential advantage of lorlatinib, a rapid response, as seen with our patient who reported an improvement of the dysphagia after the first day of therapy and complete resolution of symptoms after 5 days of therapy. The efficacy of lorlatinib, given its fast objective response, makes this therapeutic drug not only a choice of therapy after progression from two or more tyrosine kinase inhibitors but also a powerful treatment for patients needing rapid tumor shrinkage.

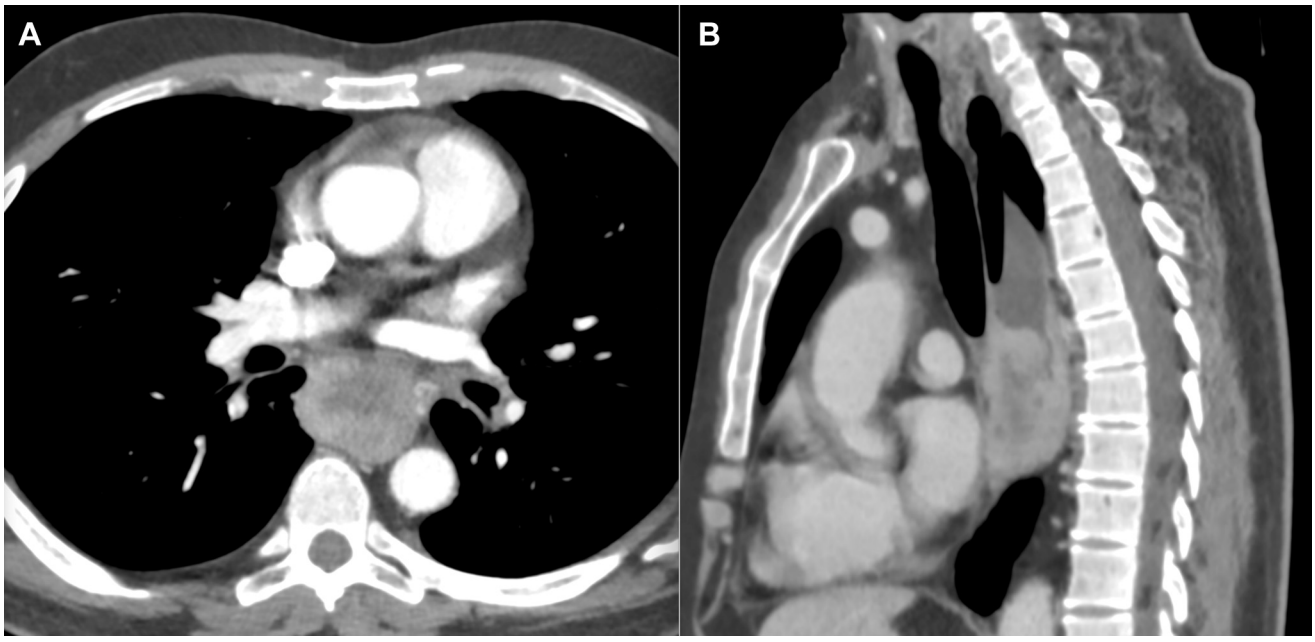


**Figure 2.** *(A, B)* Computed tomography revealed that the stricture is owing to a direct esophageal metastasis.

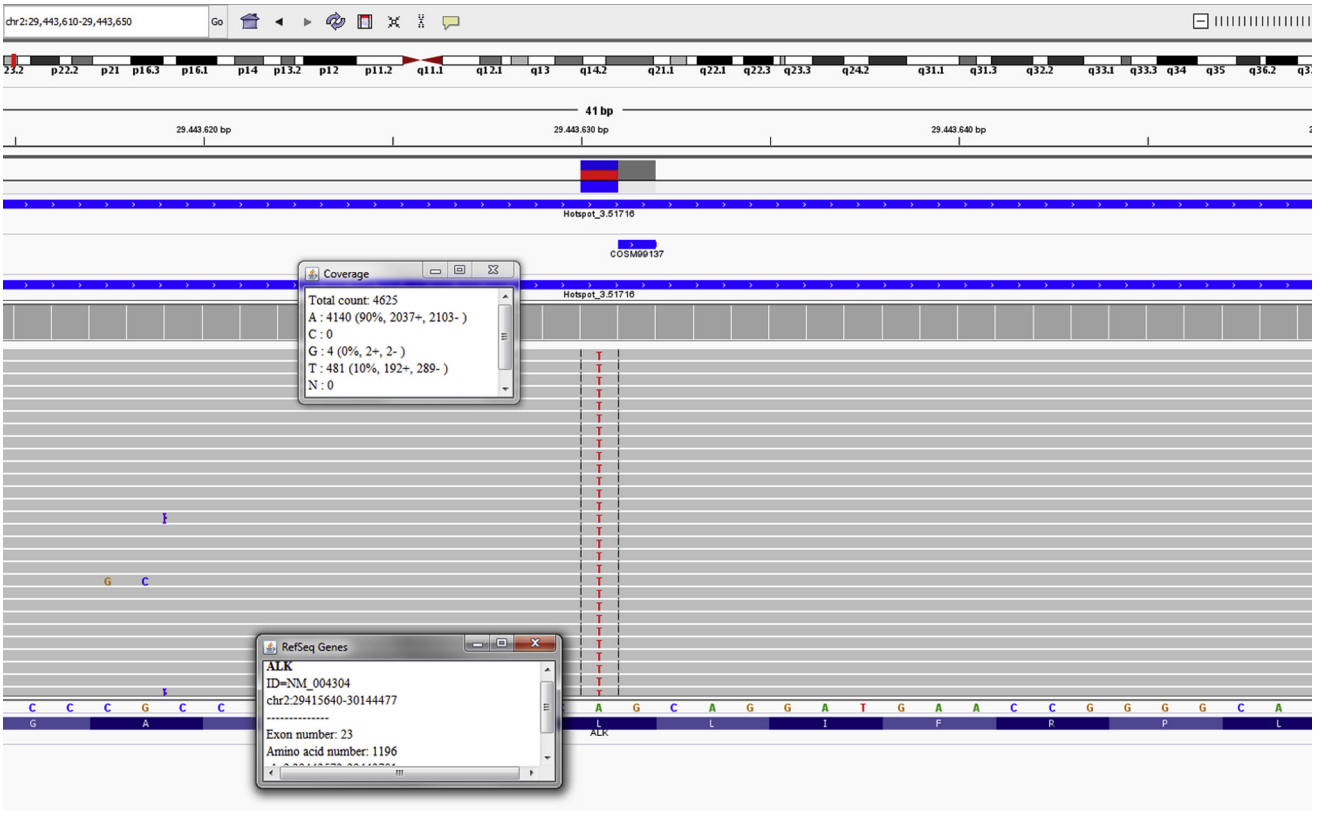


**Figure 3.** The next-generation sequencing achieved on the esophageal metastasis revealed an L1196Q mutation.

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