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Alert to Potential Contagiousness: A Case of Lung Cancer With Asymptomatic Severe Acute Respiratory Syndrome Coronavirus 2 Infection



To the Editor:

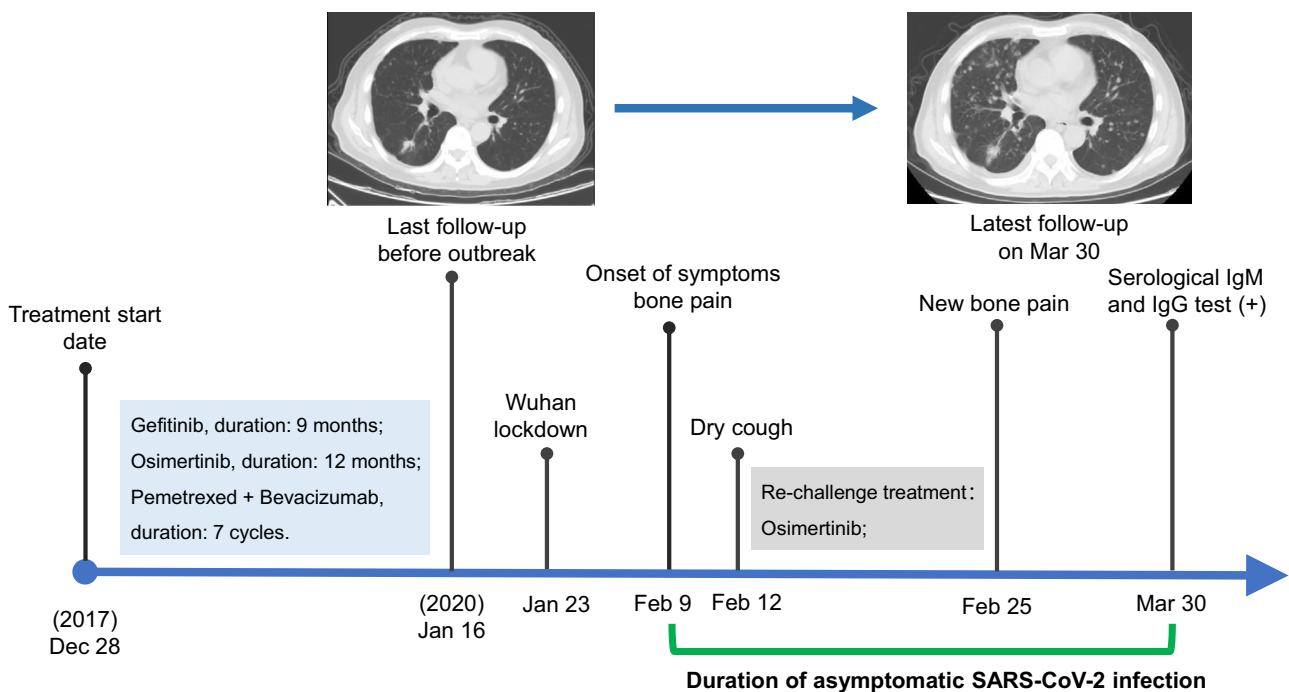
The novel coronavirus disease 2019 (COVID-19) has become a global pandemic and affected more than 1 million people all over the world.¹ This disease is notably linked to the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Nowadays, asymptomatic SARS-CoV-2 carriers are causing concern.² We previously reported that patients who had cancer were at an increased risk of COVID-19.³ Here, we report a

case of an asymptomatic SARS-CoV-2 carrier with lung cancer who might be contagious.

A 56-year-old Chinese man diagnosed as having advanced lung adenocarcinoma with *EGFR* 19-Del mutation, after gefitinib and subsequent osimertinib treatments, was receiving a third-line maintenance chemotherapy of pemetrexed coupled with bevacizumab before the onset of the COVID-19 outbreak in Wuhan, People’s Republic of China. Given that the city is within the epidemic epicenter, and owing to the overload of infected, most hospitals suspended their regular health care services. As a result, almost all patients with cancer had to be isolated at home. After a 3-week delay in chemotherapy, the patient reported pain of the lumbar spine on February 9, 2020, followed by a slight dry cough after 3 days. The patient denied fever, myalgia, diarrhea, and other symptoms. During online consultation with an oncologist, the patient reported that his current symptoms were quite similar to those seen in the past for progression of lung cancer. On February 14, 2020, the patient chose to rechallenge osimertinib as an alternative treatment. After 1 day of rechallenge, his symptoms were greatly relieved; however, on February 25, 2020, the patient complained of new bone pain at inconsistent sites.

As the outbreak passed, medical institutions in Wuhan gradually recovered. The patient returned to our hospital on March 30, 2020. Screening tests for COVID-

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Time-line of clinical history for a lung cancer patient with asymptomatic SARS-CoV-2 infection

Figure 1. Timeline of clinical history for a patient having lung cancer with asymptomatic severe acute respiratory syndrome coronavirus 2 infection.

19 were done including chest computed tomography and throat swab reverse transcriptase-polymerase chain reaction, which revealed negative results. Testing for serologic IgM and IgG antibodies for SARS-CoV-2 were also performed and were found to be positive, which suggested that the patient was an asymptomatic SARS-CoV-2 carrier (Fig. 1). On consideration that the positive IgM antibody might represent potential infectivity, the patient was placed in an isolation ward to prevent possible in-hospital transmission. Subsequent throat swabs tests performed on March 31, April 2, and April 3, 2020 were all negative. Further serologic IgM antibody results turned negative on April 3, 2020, confirming the patient had recovered from COVID-19. Meanwhile, as a close contact, his wife was required to undergo screening tests; she tested positive for serologic IgG antibody alone but was negative on throat swab assay and chest computed tomography. His wife denied any clinical symptoms and contact history. This familial transmission highlights that asymptomatic carriers are indeed contagious.

On April 7, 2020, after consulting COVID-19 specialists, the patient resumed his chemotherapy regimen to which he was confirmed to be responsive before the COVID-19 outbreak. Subsequently, a postchemotherapy diagnostic test was performed, which revealed that only serologic antibody IgG was positive.

In conclusion, this case suggests that we should be alert to suspicious symptoms in patients with lung cancer, which might overlap with those of asymptomatic COVID-19. To our knowledge, we are the first to report that chemotherapy might be safe for asymptomatic carriers after the serologic IgM antibody turns negative. However, further studies are urgently required.

A Rapid Fatal Evolution of Coronavirus Disease-19 in a Patient With Advanced Lung Cancer With a Long-Time Response to Nivolumab



To the Editor:

Coronavirus disease-19 (COVID-19) is now a pandemic disease. In Italy, the first set of cases were documented

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at the end of January 2020 reporting a dramatic spread. Liang et al.¹ reported an increased risk of COVID-19 for patients with cancer, having poorer prognosis than those without cancer. We present a case of a rapid fatal evolution of COVID-19 in a patient with metastatic lung cancer in partial remission with immunotherapy since 2013.

On March 4, 2020, a 65-year-old male patient presented in the emergency department for shortness of breath, fever, and mental confusion. The hemogasanalysis revealed hypoxia; laboratory tests revealed normal leukocytes with lymphopenia, and elevation of C-reactive protein, transaminases, and lactate dehydrogenase. Chest radiograph showed reticular interstitial addensative findings (Fig. 1). Nasal swab was positive for COVID-19.

His medical history was positive for emphysema and lung adenocarcinoma diagnosed in August 2012. At that time, the patient underwent cerebral metastasectomy,