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Letter to Editor

On the importance of establishing emergency screening from an early case of COVID-19



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To the editor,

Coronavirus Disease 2019 (COVID-19), known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been labeled a pandemic by the World Health Organization.^{1,2} Cancer patients are regarded as a susceptible population in the current COVID-19 pandemic; however, the clinical characteristics of cancer patients with COVID-19 are largely unknown so far.³

A 34-year-old female with a medical history of breast cancer received chemotherapy and endocrine therapy after seven months following surgical excision. From January 29, 2020, to February 5, with a low fever and chest tightness, the patient sought treatment

at two different hospitals. Laboratory tests were notable for a C-reactive protein (CRP) of 12.86 mg/L and a total leukocyte count of $4.56 \times 10^9/L$ with 57.9 % neutrophils, 31.3 % lymphocytes, and 10.1 % monocytes. A chest computed tomography (CT) showed bilateral ground-glass opacities (GGOs) throughout both lungs, with a pure ground-glass nodule (GGN) in the lateral basal segment of the lower right lung lobe (Fig. 1A) and a mixed GGN in the anterior basal segment of the lower left lobe (Fig. 1B). An additional mixed GGN was seen in the posterior basal segment of the lower right lobe (Fig. 1C). Considering the possibility that these findings, including the suspected inflammation, were consistent with cancer metastasis and an adverse drug reaction (ADR) of postoperative breast cancer radiotherapy, short-term re-examination was recommended. After that, the patient applied for admission to our hospital with chest tightness, shortness of breath, and discomfort. Coming to our hospital with no fever, she went to the outpatient clinic of the respiratory department and was given symptomatic treatment in the emergency observation room, and the symptoms seemed to be alleviated. To clarify the changes of the disease, a chest CT (Fig. 1D–F) was performed on February 8, 2020, revealing that lung markings were increased. Symptoms were consistent with inflammation of bilateral lungs with a predominance of the right lung. After consultation with the Centers for Disease Control

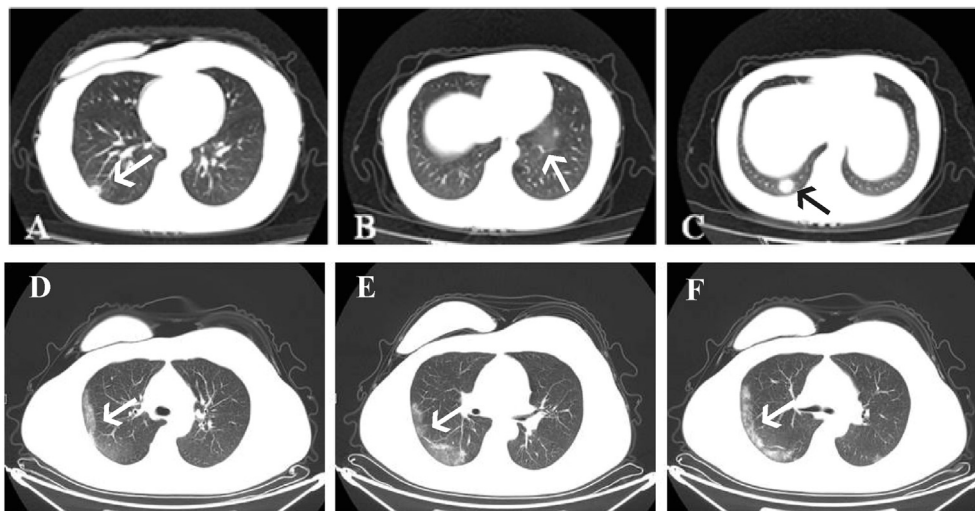


Fig. 1. (A) A pure ground glass nodule (14.8 mm × 11.3 mm, white arrow) in the lateral basal segment of the right lower lobe (B) A mixed ground glass nodule (12.0 mm × 11.2 mm, white arrow) in the anterior basal segment of the left lower lobe (C) An additional mixed ground glass nodule (20.8 mm × 18.7 mm, black arrow) in the posterior basal segment of the right lower lobe (D–F) Multiple high-density patchy shadows; blurred edges (white arrows) with predominance of the subpleural right lung; a few fibrous cords (G) Emergency treatment procedure for critically ill patients.

(CDC), SARS-CoV-2 (+) was detected by viral nucleic acid, and the diagnosis of COVID-19 was confirmed.

Although the patient did not cause the epidemic's spread in the diagnosis and treatment period, the risk of cross-infection and spread of the epidemic has caused panic within hospitals and society. Due to the particularity of the emergency department, there is a contradiction between epidemic prevention and control and patient diagnosis and treatment. A reasonable emergency rescue strategy for critically ill patients is essential, so the emergency department formulated the "Emergency treatment procedure for critically ill patients" (Supplement Figure). They should perform the rescue strategy first, especially for critically ill patients with fever, when the staff does not have enough time to check for COVID-19. As an important line of defense for hospital infectious disease screening, the emergency department has an irreplaceable clinical value of accurate screening and diagnosis of COVID-19.⁴ The emergency department must adjust the focus and coping strategies of epidemic prevention and control according to the situation.

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Ethics approval and consent to participate

This study was conducted with approval from the Ethics Committee of The Second Hospital of Shandong University. This study was conducted in accordance with the declaration of Helsinki. Written informed consent was obtained from all participants.

Consent for publication

All participants signed a document of informed consent.

Declaration of competing interest

The authors declare that they have no competing interests.

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References

- Huang C, Wang Y, Li X, et al. Clinical features of patients with 2019 novel coronavirus in Wuhan, China[J]. *Lancet*. 2020;395(10223):497–506.
- World Health Organization. <https://www.who.int>; 2020. accessed 21 May 2020.
- Liu C, Zhao Y, Okwan-Duodu D, Basho R, Cui X. COVID-19 in cancer patients: risk, clinical features, and management. *Cancer Biol Med*. 2020 Aug 15;17(3):519–527.
- Zhang Q, Pan J, Zhao M, et al. Clinical value of the emergency department in screening and diagnosis of COVID-19 in China. *J Zhejiang Univ Sci B*. 2020;21:388–393.

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