

CASE REPORT

Venlafaxine-induced interstitial lung disease with COVID-19 pandemic-related depression

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Abstract

Venlafaxine-associated pulmonary toxicity is rare, with only a few reports of pneumonitis, eosinophilic pneumonia, and asthma. We report a case of venlafaxine-induced interstitial lung disease in a patient with coronavirus disease 2019 pandemic-related depression. Chest imaging findings improved after discontinuation of venlafaxine and treatment with corticosteroids.

KEYWORDS

drug-induced pneumonitis, venlafaxine

1 | CASE PRESENTATION

A 73-year-old woman with treatment-free Sjogren's syndrome was hospitalized for depression related to the coronavirus disease 2019 (COVID-19) pandemic, and venlafaxine was initiated. There were no pulmonary lesions on admission (Figure 1A–2A). Two months after starting treatment, the patient complained of dry cough, and chest imaging revealed bilateral multiple ground-glass opacities, consolidation, and small bilateral pleural effusions (Figure 1B–2B). Polymerase chain reaction assay for COVID-19 was negative. Laboratory findings revealed elevated surfactant protein-D (187 ng/ml) and C-reactive protein (15.7 mg/dl), normal Krebs von den Lungen-6 (306 U/ml), and no novel autoantibodies

compared with baseline. Bronchoalveolar lavage fluid was predominantly lymphocytic (82%). Venlafaxine discontinuation and treatment with corticosteroids improved imaging findings (Figure 1C).

2 | DISCUSSION AND CONCLUSION

The COVID-19 pandemic shows no sign of abating, and its negative impact on mental health is a major social problem worldwide. The prevalence of pandemic-related depression in the general population is estimated at 14.3%–24.3%.¹ Venlafaxine, a serotonin-noradrenaline reuptake inhibitor, is used to

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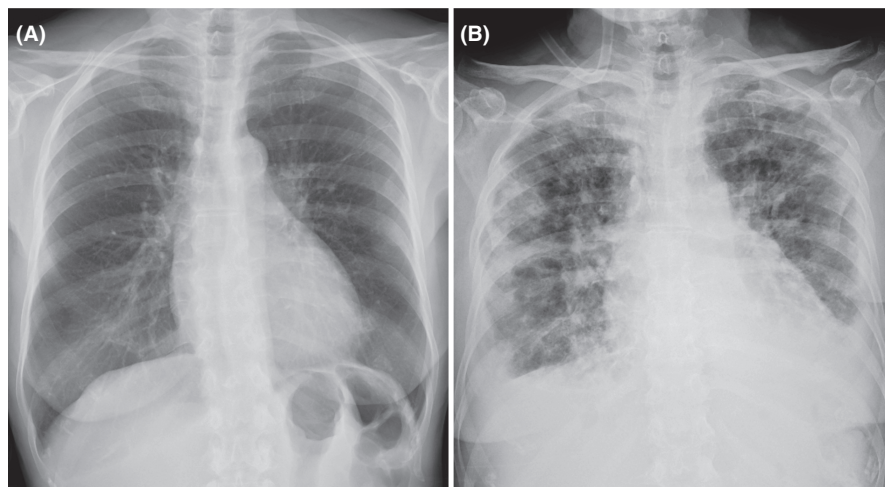


FIGURE 1 (A) Chest radiograph showing no pulmonary lesions on admission. (B) Chest radiograph 2 months after venlafaxine treatment showing bilateral multiple opacities

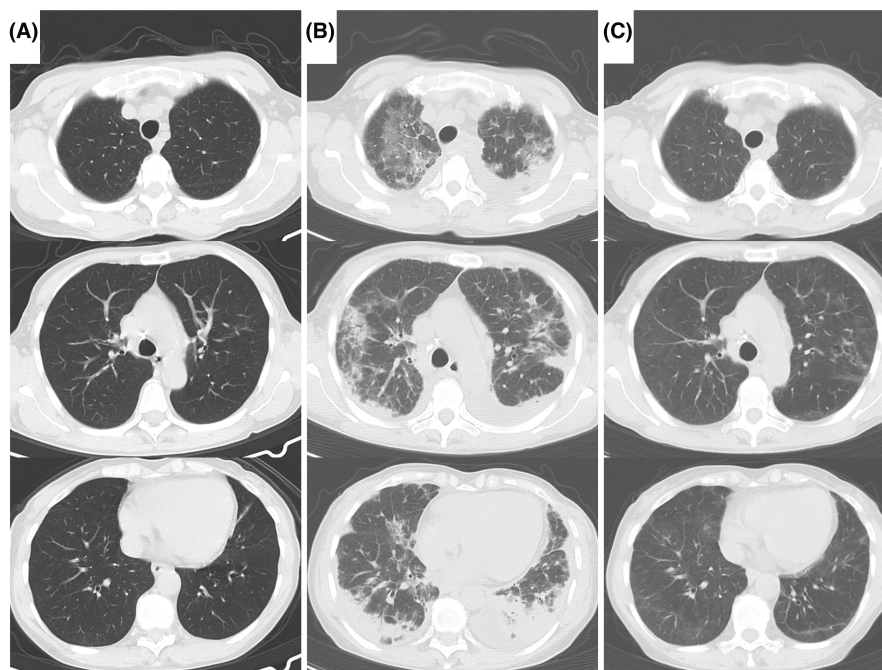


FIGURE 2 (A) Chest CT with no pulmonary lesions on admission. (B) Chest CT showing bilateral multiple ground-glass opacities, consolidation, and small bilateral pleural effusions 2 months after venlafaxine treatment. (C) Chest CT revealing remarkable improvement 3 months after discontinuation of venlafaxine and corticosteroid treatment. Regarding corticosteroid administration, 500 mg methylprednisolone was first administered for 3 days, then tapered to 40 mg/day prednisolone and then discontinued over 3 months. A probable relationship between venlafaxine and interstitial lung disease was obtained with an Adverse Drug Reaction Probability Score (Naranjo nomogram) of 7. Abbreviation: CT, computed tomography

treat depression worldwide. Venlafaxine-associated pulmonary toxicity is rare, with only a few reports of pneumonitis, eosinophilic pneumonia, and asthma.² This rare pulmonary side effect of venlafaxine should be promptly diagnosed and treated to improve patient outcomes.

AUTHOR CONTRIBUTIONS

AO was responsible for manuscript drafting and image modification. KK was responsible for psychiatric diagnosis. Both authors were directly involved in the treatment

of the patient, critically revised the manuscript, and approved the final version.

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None.

CONFLICT OF INTEREST

None.

DATA AVAILABILITY STATEMENT

No datasets were generated or analyzed for this case report.

CONSENT

Written informed consent to publish this report was obtained from the patient before the submission process.

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