Sir,

Levofloxacin, an antibiotic from the fluoroquinolone group, has broad spectrum of activity, displays excellent bioavailability, and a long serum half-life allowing for a once-daily dose administration.

Although it is a widely prescribed antibiotic, it has frequently been plagued with black-box warnings of adverse drug reactions.

We present a case of unfortunate cascade of events in a case of pneumonia, wherein the patient developed psychosis and bullous photodermatitis after a short course of levofloxacin.

47-year-old female, a known case of diabetes mellitus and vitiligo vulgaris was brought to the dermatology outpatient department by relatives with red patches and painful blistering over the hands and feet of 3–4 days duration.

She had been treated for Chronic Obstructive Pulmonary Disease and pneumonia last month and discharged from the hospital about 2 weeks back on antibiotics (cefuroxime and levofloxacin) and metered dose inhalers (tiotropium and asthalin). The relatives gave a history of prolonged sun exposure by the patient due to the prevalent cold weather. They also complained of irritable behavior, repetitive speech, and drowsiness for the last few days.

The patient was wheel-chair bound, appeared lethargic, and had tachycardia, tachypnea, and low-grade fever. Although she appeared drowsy, she was oriented in time, person, and place. Auscultation revealed rhonchi and wheeze. Dermatological examination revealed generalized erythema and edema over the vitiliginous skin and a hemorrhagic crusted lesion over dorsum of the right hand [Figure 1a]. Dorsum of both feet was edematous, had few bullae and large areas of erosions and ulcerations [Figure 1b]. Bilateral inguinal lymph nodes were enlarged and tender.

A provisional diagnosis of drug-induced bullous photodermatitis and cellulitis was made. Levofloxacin was stopped immediately. In view of recent hospitalization and features of cellulitis, she was started on intravenous tazobactum and teicoplanin along with local dressing with normal saline soaks and mupirocin cream. Adequate glycemic control was maintained with insulin. In the same evening, she developed irrelevant speech. She was diagnosed to have psychosis, and in the absence of the past history of any psychiatric illness in the patient as well as family members and the temporal correlation to drug, it was suspected to be drug-induced psychosis. The patient worsened over the next 48 h with new-onset metabolic acidosis and hypotension. Despite aggressive management, she continued to deteriorate and succumbed to her illness.

This case is presented as, despite frequent black-box warnings, fluoroquinolones are rampantly used for the treatment of respiratory and urinary tract infections. It highlights two rare side effects of levofloxacin, bullous photodermatitis, and psychosis. Photosensitivity is a known side effect of fluoroquinolones, and even painful blistering is reported; however, levofloxacin is believed to be among the less photosensitive in the group.[1,2] This assumes more significance in vitiligo patients who have inherently compromised photoprotection. However, there is no warning regarding this subset of patients and therefore, little awareness of it in the environment.

The central nervous system (CNS)-related side effects account for about 0.9%–11% of reported adverse effects of fluoroquinolones. It is suggested that these are related to the quinolones’ ability to inhibit the binding of γ-aminobutyric acid (GABA) to the GABA receptors, leading to CNS excitation.[3] Common CNS-related adverse effects of levofloxacin are headache, dizziness, anxiety, and restlessness; although, hallucinations, convulsions, and seizures are also reported. A 2001 report suggested that levofloxacin-induced psychosis occurred in only one in 6 million prescriptions.[4] There are literature and Food and Drug Administration warnings for CNS side effects, but they are not explicit except for trovafloxacin. Although few recent reports have reported psychosis, the scarce literature available on fluoroquinolone-induced psychosis suggests that this side effect of fluoroquinolones is under-recognized.[5]

We wish to emphasize that physicians as well drug agencies should take cognizance of it in special subsets of patients like the vitiligo patient being reported in the present case.

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Conflicts of interest
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