

Dapsone-induced neutropenia with invasive pulmonary aspergillosis

Girish R. Sabnis, Uday P. Kulkarni, Yojana A. Gokhale

Department of General Medicine, Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai, India

Address for correspondence: Dr. Girish R. Sabnis, 89/3, Society Bldg., Lane 3, Hindu Colony, Dadar (East), Mumbai-400 014, India.
E-mail: girishsabnis@live.in

A 28-year-old farmer presented to a tertiary center in western India with complaints of fever and dry cough since 2 weeks. He had been diagnosed with borderline lepromatous leprosy and was on multidrug therapy for the last 30 days with dapsone 100 mg daily, rifampicin 600 mg once a month, and clofazimine 300 mg once a month followed by 50 mg daily. Examination was remarkable for fever, tachypnea, and few scattered crackles on chest auscultation. Investigations revealed severe neutropenia, with the white blood cell (WBC) count falling from 6000/mm³ 1 month ago to 800/mm³ (with 50% neutrophils) at present. Chest x-ray revealed bilateral infiltrates and ill-defined cavities with the crescent sign [Figure 1]. High-resolution computed tomography showed multiple scattered cavitary lesions within areas of consolidation in both lungs, the right more than the left [Figure 2]. HIV ELISA and blood culture were negative. In view of the neutropenia, dapsone was withdrawn and the patient was empirically started on intravenous antibiotics and granulocyte colony stimulating factor (G-CSF) at a dose of 5 µg/kg. Bronchoscopic alveolar lavage was performed; fluid cultures tested positive for *Aspergillus fumigatus* and were negative for bacteria, including mycobacteria and nocardia. Our diagnosis was invasive pulmonary aspergillosis in a secondary immunocompromised state, probably due to dapsone-induced neutropenia. The patient was given oral itraconazole 200 mg bid for 8 weeks. There was progressive clinical and radiological recovery, with the WBC count rising to 8000/mm³ (with 65% neutrophils) at the end of 8 days of therapy.

Neutropenia or agranulocytosis is a known idiosyncratic

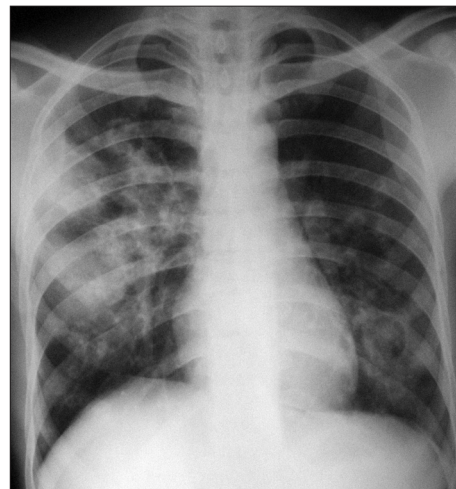


Figure 1: Chest X-ray shows bilateral pulmonary infiltrates (right > left), with ill-defined cavities showing the crescent sign



Figure 2: HRCT chest shows cavitary lesions with crescent sign within areas of consolidation in the right lung

complication of dapsone, especially when used in dermatologic conditions such as dermatitis herpetiformis (incidence of 0.2%–0.4%).^[1] Although only rarely reported in leprosy,^[2] it may prove lethal and should always be

Access this article online	
Quick Response Code: 	Website: www.lungindia.com
	DOI: 10.4103/0970-2113.95340

on the alert clinician's radar while treating this common tropical infection.

REFERENCES

1. Hornsten P, Keisu M, Wiholm BE. The Incidence of agranulocytosis during treatment of dermatitis herpetiformis with dapsone as reported in Sweden, 1972 through 1988. *Arch Dermatol* 1990;126:919-22.
2. Mishra M, Chhetia R. Dapsone-induced agranulocytosis in a patient of leprosy. *Indian J Dermatol Venereol Leprol* 2006;72:456-7.

How to cite this article: Sabnis GR, Kulkarni UP, Gokhale YA. Dapsone-induced neutropenia with invasive pulmonary aspergillosis. *Lung India* 2012;29:185-6.

Source of Support: Nil, **Conflict of Interest:** None declared.