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journal or publication title	Pulmonary Pharmacology and Therapeutics
volume	25
number	1
page range	11-11
year	2012-02-01
URL	http://hdl.handle.net/2297/30136

doi: 10.1016/j.pupt.2011.11.003

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The most common reasons for presentation immediately after a massive earthquake that hit eastern Japan on 11 March 2011 were reported to be the need for repeat routine medications, upper respiratory-tract infections, and insomnia apparently related to increased stress [1]. Around one month after the disaster, we suspected that environmental fungi present in the air because of the collapse of houses may affect the respiratory conditions of local residents rather than asbestos.

Saiseikai Kanazawa Hospital Medical Relief Team arrived at Ogatsu near Ishinomaki City on 16 April 2011. There was still a great deal of scattered debris on the ground. Our medical team visited Mizuhama refuge that stood near the inlet. About 20 people had begun living there temporarily. Many previously healthy people began to suffer from non-productive cough.

Significant progress has been made in understanding cough over the past 10 years [2]. In addition, the cause of chronic cough in each patient will be diagnosed based on numerous treatment guidelines under ordinary conditions. In a tsunami-affected town, it may be assumed that cough symptoms may not be treated successfully because of inadequate assessment and poor compliance with therapy. In fact, although previously arriving medical teams prescribed various medications (such as clarithromycin, antitussive drugs, histamine H1 antagonists, inhaled corticosteroids, bronchodilators,

and proton-pump inhibitors) during this period, the cough symptoms of these patients had not yet subsided. Therefore, the high prevalence of unexplained chronic cough (UCC) [3] seemed not to be due to the inconvenient conditions but to the ineffective therapy.

The common respiratory manifestations on our arrival were mainly a sensation of something being stuck in throat and sometimes small amounts of clear bronchial production following attacks of coughing. These clinical features are included in those of fungus-associated chronic cough (FACC) [4]. Petri dishes with Sabouraud's agar medium were exposed on the floor of the refuge, and *Aspergillus fumigatus*, *Aspergillus flavus*, and basidiomycetous fungi [5] colonized the plates. The fungal cultures obtained from the sputum of 6 patients (46.2%) under informed consent showed almost the same fungal profile (*Aspergillus fumigatus* 66.7%, *Aspergillus flavus* 33.3%, and basidiomycetous fungi 33.3%) as the environmental survey. A low dose of itraconazole therapy (50 mg/day for 14 days) [4] showed excellent efficacy for the respiratory symptoms in these cases. Thus, some patients with UCC were possibly diagnosed as having FACC.

The outbreak of respiratory disorder in the refuge has subsided. Our clinical experience indicated that the new clinical concept of FACC has some advantages in

managing UCC in a tsunami-affected town.

We declare that we have no conflicts of interest.

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