A rare case of recurrent fever in a patient with idiopathic pulmonary hypertension

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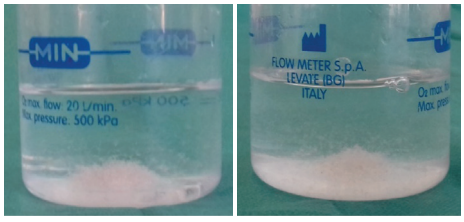
We present a case of a 48 year-old male patient with a history of idiopathic pulmonary hypertension under long term oxygen therapy who was hospitalized three times due to high fever, dyspnea and severe hypoxemia. He first received a diagnosis of community acquired respiratory tract infection, and then a hospital acquired respiratory tract infection. Fever and hypoxemia resolved successfully after treatment with antibiotics, and patient was discharged. Both times, the patient presented high fever and aggravated cough within a few hours while resting at home, therefore, he returned to the hospital. At his third hospitalization, hypersensitivity pneumonitis was considered probable. Environmental exposure history limited the possible causative agents to residential ones or oxygen supply associated. The patient reported that he used water from a clothes dryer he recently bought to fill up the oxygen humidifier before occurrence of symptoms. Indeed, inside the humidifier, residue was macroscopically visible, making the diagnosis of hypersensitivity pneumonitis stronger. Culture of the residue did not reveal any microbial predominance. Symptoms improved without treatment, the oxygen humidifier was replaced and our patient returned home without recurrence of fever. The diagnosis of hypersensitivity pneumonitis was confirmed by clinical improvement after antigen avoidance.



Hypersensitivity pneumonitis is a challenging diagnosis. Recurrent exposure to an environmental antigen can provoke this interstitial lung disease that can present in three forms, acute, subacute and chronic, with symptoms of variable clinical significance from mild febrile illness to acute respiratory distress syndrome.[1] Furthermore, radiologic and laboratory findings can be inconclusive. In this case, identification of the causative agent required persistence in history taking. In the current literature the terms "ventilation pneumonitis", "humidifier lung", "air conditioner lung" have been used to describe HP cases associated with contaminated forced-air systems, water reservoirs and air conditioners respectively. Microbial flora that has been isolated in such cases includes Thermoactinomyces species, Klebsiella oxytoca, Naegleria gruberi, Acanthamoeba species, Bacillus species, and others.[3] HP associated with reused water from a clothes dryer in an oxygen humidifier has never been reported. In this case residue consisting of fibers and dust was macroscopically visible in the water container (image) and microbiological cultures were negative.

REFERENCE

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