Some Notes on the Overdiagnosis of "Toxic Mold" Disease

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"Mold neurotoxicity" has been a common allegation in personal injury litigation. The alleged injuries are variously referred to as brain damage, toxic encephalopathy (brain disease), cognitive deficits, neurobehavioral deficits, neuropsychological impairment, and/or a component of sick building syndrome or environmental illness. The alleged symptoms include memory deficits, difficulty concentrating, problems with language and reasoning, mental fatigue, depression, and anxiety. In 2001, a Time Magazine article warned: "Like some sort of biblical plague, toxic mold has been creeping through homes, schools and other buildings across the U.S. . . . The biggest winners are the industries feeding off mold mania." [1]

Despite all this, there is no consistent pattern of symptoms or test results through which a diagnosis of "mold neurotoxicity" can be defined. Nor is there any scientific basis for the allegation that breathing mold spores or mycotoxins in household and commercial office settings causes neuropsychological impairment [2]. The neuropsychological effects of these exposures are unknown.

In 2003, researchers at the University of California Medical Center in San Francisco published a paper about the misuse and misinterpretation of immune tests to document mold problems. They concluded:

Indoor mold growth is variable, and its discovery in a building does not necessarily mean occupants have been exposed. Human response to fungal antigens may induce IgE or IgG antibodies that connote prior exposure but not necessarily a symptomatic state. Mold-related disease has been discussed in the framework of noncontroversial and controversial disorders. . . . When mold-related symptoms occur, they are likely the result of transient irritation, allergy, or infection. Building-related illness due to mycotoxicosis has never been proved in the medical literature. Prompt remediation of water-damaged material and infrastructure repair should be the primary response to fungal contamination in buildings [3].

In 2005, the National Institute for Occupational Safety and Health (NIOSH) received a confidential employee request for a health hazard evaluation at the Taft Elementary School in Santa Ana, California. The investigators concluded:

The requesterers were concerned about exposure to “toxic mold” in the school. There were reports that teachers had been diagnosed with toxic encephalopathy (brain damage), while other complaints included migraine headaches, sinusitis, asthma and other health conditions related to toxic mold exposure in the school. . . .
Fifteen of the 37 (41%) staff members interviewed reported no symptoms related to work. The most common work-related symptoms were nasal symptoms such as runny or stuffy nose (8/37 or 22%). Work-related eye irritation was reported by four persons (11%). Headache, throat irritation, and cough were each reported by three (8%). Two persons described sinus pressure that got better when away from work. Nobody reported shortness of breath, chest tightness, or wheezing. Eight of 37 (22%) reported constant sinus problems or recurrent sinusitis. Three persons reported memory problems and being diagnosed by the same physician with toxic encephalopathy from mold exposure in the school. Medical records were also reviewed for seven persons. One person had evidence of sinusitis and rhinitis and one had rhinitis. None had evidence of toxic encephalopathy [4].

The report noted that several of the employees had been misdiagnosed based on immune globulin testing by Immunosciences Lab, Inc., which, in 2005, was found to be in serious violation of Clinical Laboratory Improvement Amendments (CLIA) regulations [5]. In a separate report, one of the authors and several other environmental medicine experts have warned that immune globulin testing has little or no legitimate use in diagnosing mold problems:

Testing to determine the presence of IgE to specific fungi may be a useful component of a complete clinical evaluation in the diagnosis of illnesses that can be caused by immediate hypersensitivity such as allergic rhinitis and asthma. Detection of IgG to specific fungi has been used as a marker of exposure to agents that may cause illnesses such as hypersensitivity pneumonitis. However, the ubiquitous nature of many fungi and the lack of specificity of fungal antigens limit the usefulness of these types of tests in the evaluation of potential building-related illness and fungal exposure. Specific serologic tests (such as tests for cryptococcal antigen, coccidioidal antibody, and Histoplasma antigen) have been shown to be useful in the diagnosis of some fungal infections, but these are the exception not the rule.

Conclusions: There is currently not enough scientific evidence to support the routine clinical use of immunoassays as a primary means of assessing environmental fungal exposure or health effects related to fungal exposure. Health care providers who care for persons expressing concerns about the relationship of symptoms to potential exposure to fungi are advised to use immunoassay results with care and only as an adjunct to a comprehensive approach to patient care [6].

In 2006, the Medical Board of California suspended the license Gary J. Ordog, M.D. of Newhall, California, for 90 days and placed him on seven years probation, during which time he is not permitted to engage in a medicolegal or forensics practice [7]. In 2005, the board had accused him of gross negligence, inadequate record-keeping, dishonest or corrupt acts, and deceptive public communication [8]. Among other things, he was accused of (a) improperly diagnosing four patients with heavy metal toxicity and/or toxic encephalopathy and (b) falsely claiming to have certain credentials.

In addition to seeing patients, Ordog has served as an expert witness and issued many reports in support of people who claimed to have been injured by chemicals or mold. Forbes magazine has reported that "for $9,800 up front (plus $975 an hour) Dr. Ordog appeared as an expert witness in lawsuits to testify that mold can cause a terrifying array of diseases, from lung cancer to cirrhosis of the liver." [7] However, the board documents suggest that many of his reports have been bogus. Ordog is also embroiled a civil suit by a law firm that used him as an expert but later concluded that he had
overstated his credentials and billed for services he did not perform [10].

References

2. Lees-Haley PR. Mold neurotoxicity: Validity, reliability and baloney.

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