

# Treatment of Aspergillosis in an Immunocompetent Patient: A Multidisciplinary Approach

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**Case Study:** P.J. was a 69-year-old woman who was referred to a large cancer center for an evaluation of brain and lung masses presumed to be cancerous lesions. During the three months before the referral, P.J. had experienced a gradual 40 lb weight loss, shortness of breath with exertion, chest pain, lip tremor, edema and progressive weakening of lower extremities, overall fatigue, and increasing balance and gait disturbances. Her diagnostic workup revealed aspergillosis in her lungs and brain. This case study reports the process of differentiating between cancer and fungal disease, antifungal treatment modalities used, and the multidisciplinary management approach used in the care of P.J.

P.J. had lived an outdoor lifestyle in a mobile home on a ranch in Texas. She had a history of atrial fibrillation, uncontrolled type 2 diabetes mellitus, hypertension, thrombocytopenia, possible cirrhosis of the liver, and hypothyroidism. She had a brother with a history of renal cancer, a sister with gastric cancer, and another brother with a history of intracranial aneurysm. Her mother had had a benign brain tumor and diabetes mellitus and had died of congestive heart failure. P.J. reportedly had been in good health until three months before she was referred to the cancer center, and she knew of no family history of aspergillosis.

After P.J. experienced an episode of nausea, chills, and chest pain, she was taken to the local emergency department and underwent a complete cardiac workup; myocardial infarction was ruled out. Computed tomography (CT) of the brain revealed a lesion in the left cerebellum. Chest x-ray and CT of the lungs showed cavitated masses. P.J. was believed to have lung cancer with brain metastasis.

She was transferred to the cancer center for further workup of the findings and for treatment of her symptoms. No outside medical records were available during the initial evaluation, and P.J.'s entire medical history was obtained from her and her husband. Her laboratory test values, radiologic studies, and clinical findings on admission are listed Figure 1. After P.J. was stabilized for hyperglycemia, biopsies were done for tissue diagnosis of cancer versus other pathology. Findings from biopsies of her lungs were consistent with

those of invasive pulmonary aspergillosis (IPA). Thus, P.J. was transferred to the cancer center with a presumed cancer diagnosis; however, biopsy results confirmed an IPA diagnosis. Her treatment of IPA, including multiple antifungal medications, are discussed later.

A multidisciplinary approach to P.J.'s treatment involved consultations with pulmonary medicine, infectious disease, nephrology, dermatology, neurology, physical medicine and rehabilitation, and nutrition services.

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