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ANGIOINVASIVE ASPERGILLOSIS IN PATIENT WITH LANGERHANS CELL HISTIOCYTOSIS

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INTRODUCTION
Langerhans cell histiocytosis (LCH) is a rare lung disease of unknown etiology which is presented with multiple cysts and nodules predominately in upper lobes. It is typically associated with cigarette smoking. Diagnosis can be established by high-resolution computed tomography (HRCT), brochoalveolar lavage (BAL) and/or lung biopsy. While immunosuppressive treatment is acceptable for multisystem LHC, management of pulmonary LCH is not defined yet. Smoking cessation may lead to marked improvement, although relapses have also been described. Corticosteroids are frequently used in the management of pulmonary Langerhans cell histiocytosis (PLCH) despite limited evidence of benefit.
Aspergilloma occures in pulmonary cysts and cavitary lesions. In immunocompromised patients aspergilloma may become angioinvasive, causing rapidly progressive and often lethal disease if untreated.

CASE REPORT
We present a 35-year-old male patient with pulmonary LHC which was diagnosed in 2014 according to characteristic HRCT pattern. Despite of smoking cessation he had a progression of the disease, having eight episodes of pneumothorax since 2014. In 2016 corticosteroid therapy (prednisone) had been started.
In the beginning of 2017 the patient was admitted to the hospital suffering from hemoptysis and chest pain due to new left-sided pneumothorax. HRCT revealed that several cysts that were filled with mycetomas and surrounded by gound-gass opacity suggesting angioinvasive mycetoma. Concerning long-term immunosuppression and HRCT finding we started voriconazole and gradually ceased corticosteroid therapy.
CONCLUSION
Angioinvasive aspergillosis is the most severe form of aspergillosis. It is a life-threatening condition that requires prompt treatment. CT findings include multiple or solitary nodules, alveolar infiltrates and cavitary lesions. A 'halo sign' may be seen in an early stage of disease around the nodule as a result of invasion into pulmonary vessels and is presented as an area of ground-glass opacity. Dissemination in other organs is also possible. Voriconazole is the treatment of choice for invasive pulmonary aspergillosis. In immunosuppressed patients with cystic lung disease and hemoptysis invasive aspergillosis must be considered as a possible cause of pulmonary bleeding.