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# Abstract Book

## CAS-109: Purpureocillium lilacinum Pneumonia in a Patient with Myositis-Associated ILD on Chronic Immunosuppression: A Rare and Elusive Diagnosis

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### Introduction

Purpureocillium lilacinum is a rare environmental mould that occasionally causes opportunistic infections in immunocompromised hosts, including transplant recipients, patients with haematological malignancies, and those on corticosteroids. Pulmonary involvement is uncommon, with typical CT features such as nodular infiltrates or cavitating lesions. To our knowledge, this is the first reported case

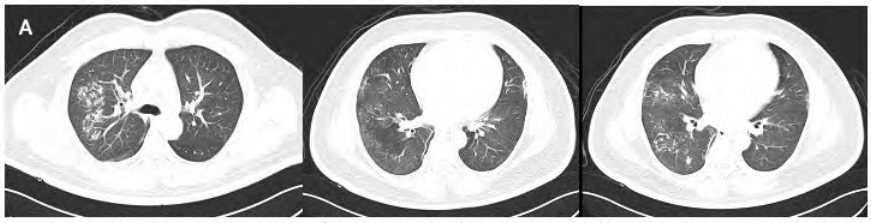
### Case Presentation

A 37-year-old man with Anti-Jo-1 positive myositis-associated interstitial lung disease (ILD), on long-term mycophenolate mofetil (MMF) and high-dose prednisolone, presented with nine days of haemoptysis, dyspnoea, and reduced effort tolerance, with five days of fever and diarrhoea. He also had right-sided heart failure due to obstructive sleep apnoea. On admission, he was hypoxic with type 1 respiratory failure and bilateral coarse crackles. Pulmonary haemorrhage due to ILD flare was suspected, and intravenous hydrocortisone was commenced. Empirical ceftriaxone and azithromycin were also initiated. CT thorax revealed patchy consolidations with tree-in-bud appearance, ground-glass opacities, and mediastinal lymphadenopathy, prompting bronchoscopy which showed blood-stained secretions from the right upper lobe. Bronchoalveolar lavage culture grew Purpureocillium lilacinum. Due to unresolved haemoptysis, oral itraconazole was commenced, while MMF and prednisolone were withheld. Antifungal therapy was extended to 12 weeks due to persistent symptoms, after which CT demonstrated complete resolution. A follow-up scan three months later confirmed no recurrence.

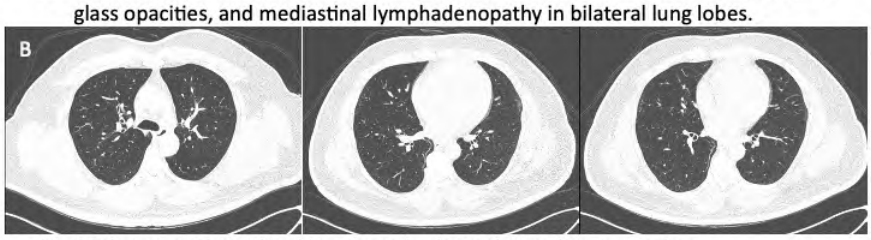
### Conclusion

This case underscores the need to consider this rare opportunistic fungal pathogen in patients with autoimmune disease on high dose corticosteroids, persistent respiratory symptoms, and atypical CT findings. Early bronchoscopy, fungal diagnostics, and timely antifungal therapy are essential to improve outcomes in this vulnerable population.

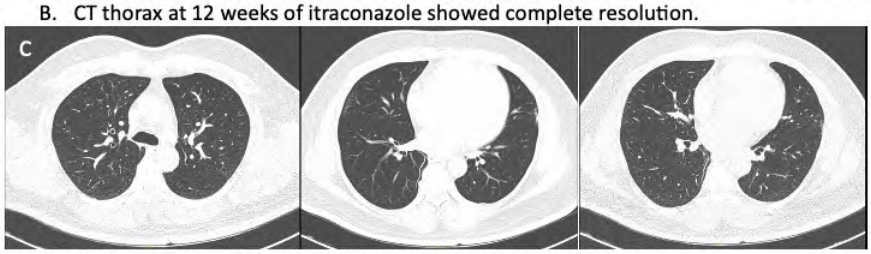
Figure 1 Serial CT Thorax




A. CT thorax prior initiation of itraconazole showed tree-in-bud appearance, ground-glass opacities, and mediastinal lymphadenopathy in bilateral lung lobes.




B. CT thorax at 12 weeks of itraconazole showed complete resolution.




C. CT thorax 3 months post cessation of itraconazole showed no recurrence.