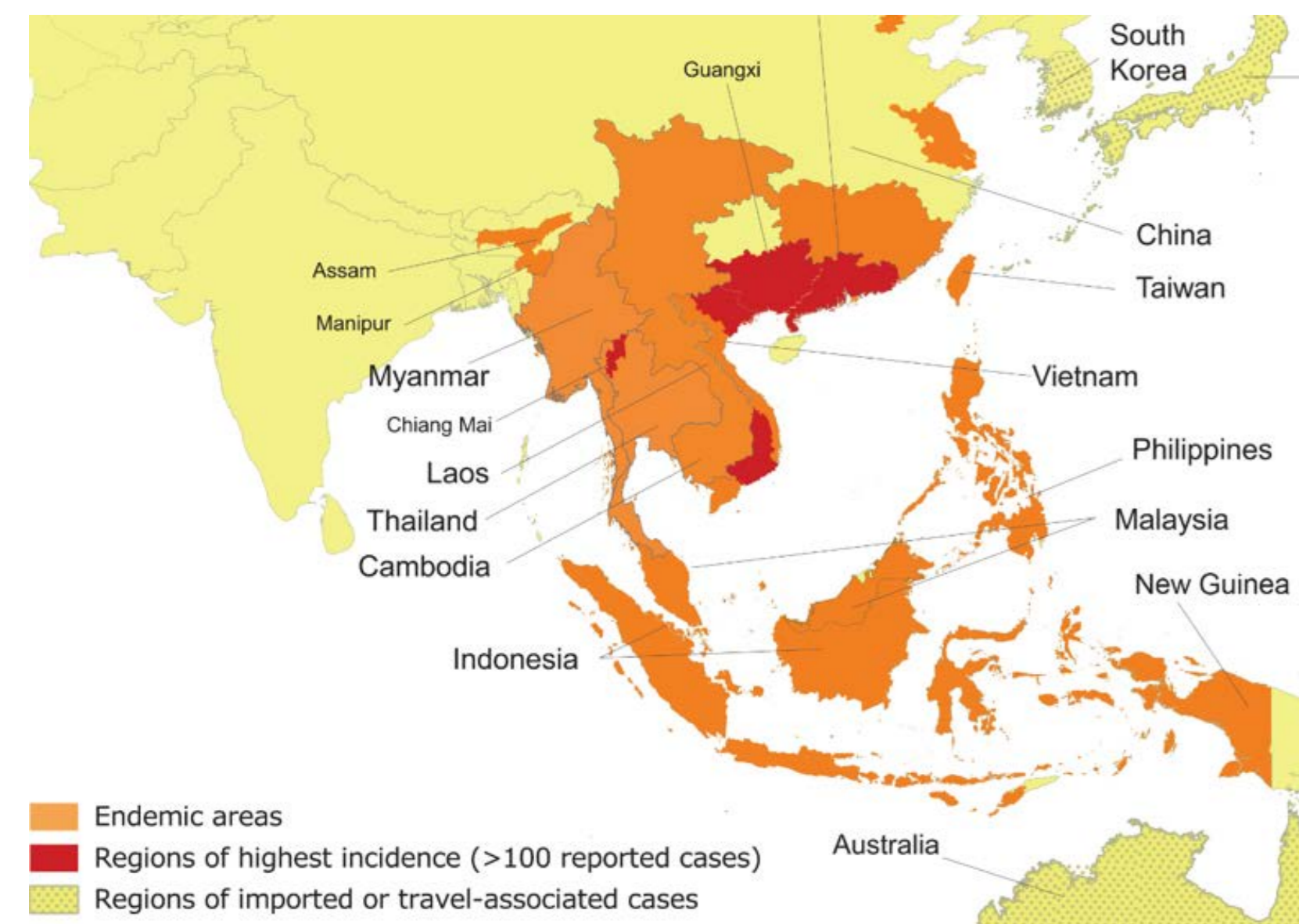


# Rare Cases of *Talaromyces* Pneumonia in Individuals with Underlying Cancer and No Travel to Endemic Areas

## BACKGROUND

- Talaromyces marneffeii* causes a systemic fungal infection, referred to as talaromycosis, and is considered to be an AIDS-defining illness for patients with HIV living in the Southeast Asian region (Figure 1).
- While the number of cases of talaromycosis in HIV/AIDS patients has been decreasing due to antiretroviral therapy, the number of cases in non-HIV/AIDS individuals has increased.
- Non-HIV-infected patients are found to have higher case fatality rates with this fungal infection.



*Talaromyces marneffeii* distribution<sup>3</sup>

## CASE 1 PRESENTATION

A 76-year-old male with a past medical history of emphysema and latent tuberculosis status post rifampin treatment, presented with a necrotic lung mass. He was diagnosed with squamous cell lung carcinoma and bronchoalveolar lavage cultures grew *Talaromyces marneffeii*. He had no animal exposures or prior travel history to Asia. Due to a transfusion reaction to liposomal amphotericin (the mainstay of treatment), he required a transition to posaconazole. He was HIV negative and expired due to complications from underlying cancer and infection.

## CASE 2 PRESENTATION

A 63-year-old male with a past medical history of tuberculosis, diabetes, and cavitary pneumonia with bronchoscopy positive for *Talaromyces* presented with worsening back pain and was found to have multiple site of poorly differentiated adenocarcinoma in liver, bone, adrenal gland, and pancreas, likely originating from gastric adenocarcinoma. He was HIV-negative and expired due to complications from underlying cancer and infection.

## CLINICAL IMAGES

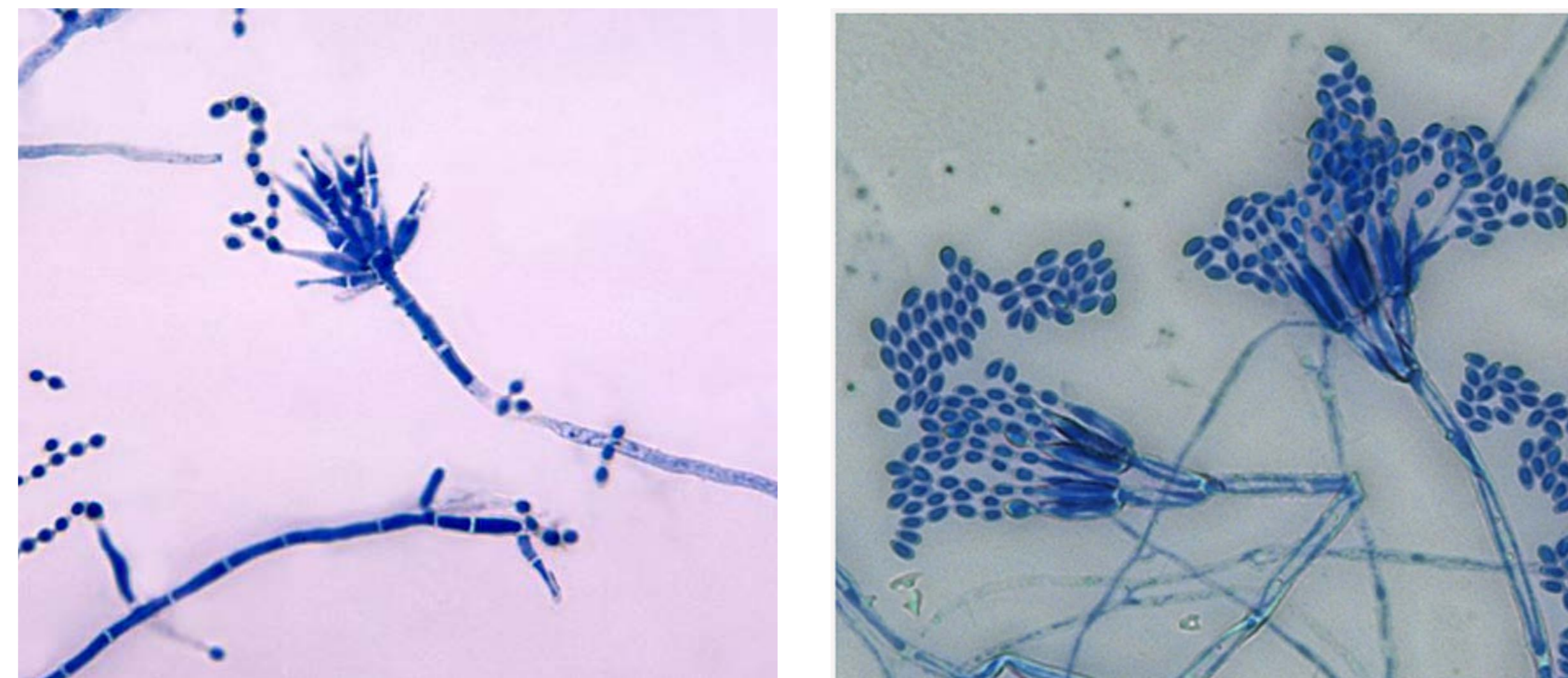


Fig. 1 Microscopy of *Talaromyces marneffeii*<sup>4,5</sup>

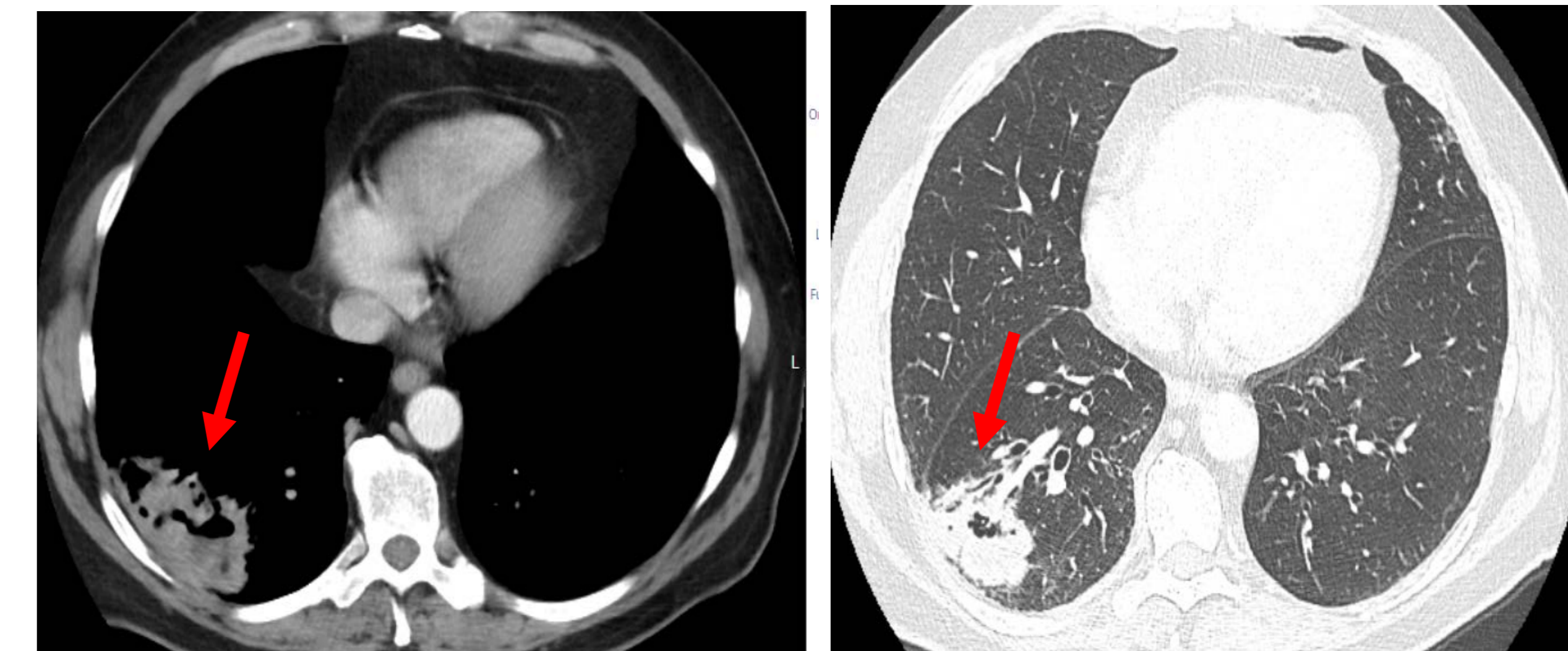


Fig. 3 CT scan of Case 2 showing cavitary pneumonia

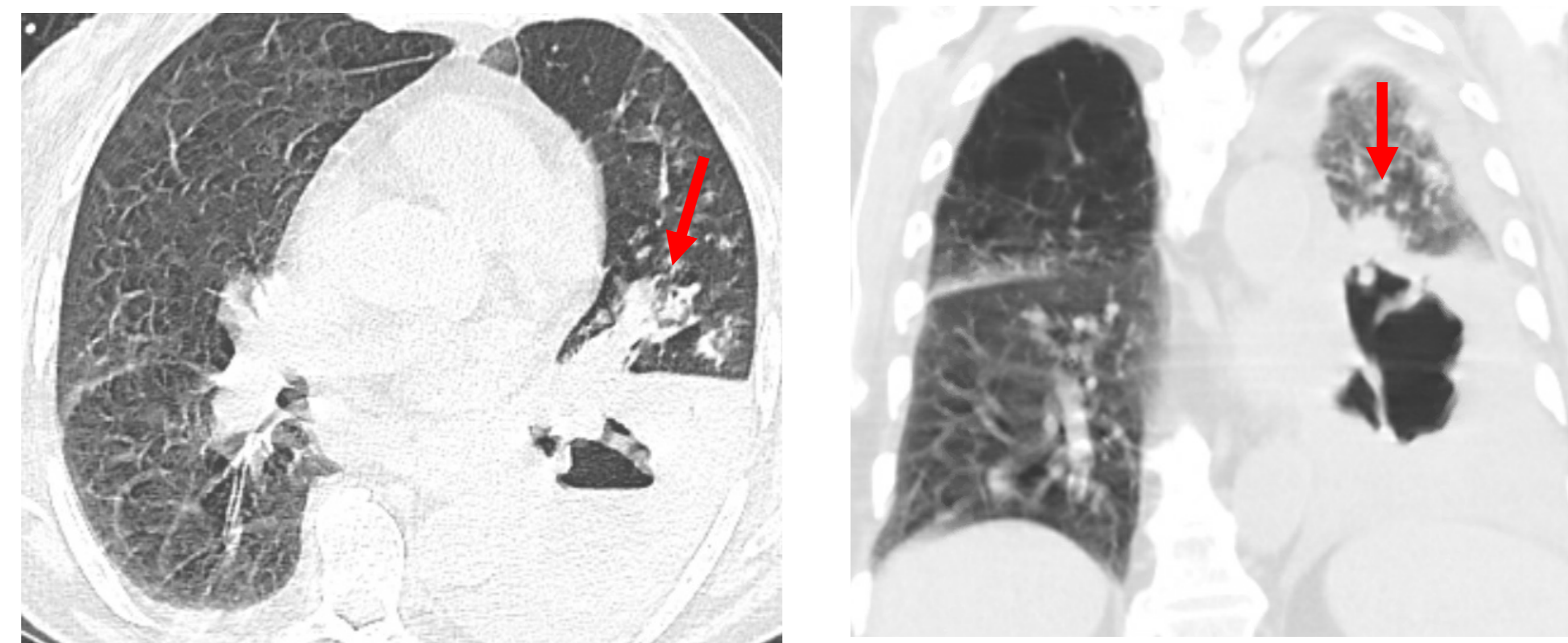


Fig. 2 CT scan of Case 1 showing necrotic lung mass

## DISCUSSION/CONCLUSION

- Talaromyces marneffeii* is historically known to be prominent in Southeast Asia as an AIDS-defining illness, however, these cases emphasize that patients do not always fit into the classic presentation of this rare fungal infection.
- We demonstrate that patients with pulmonary *Talaromyces*:
  - Are becoming more prominent outside of endemic areas even in the setting of no prior travel
  - Talaromyces* does not always indicate HIV-positive infection
  - Patients with this infection are typically severely immunosuppressed and require extensive workup for other indolent comorbidities such as underlying cancer or tuberculosis
- Future investigations are needed to determine the correlation between *Talaromyces* and underlying cancer or tuberculosis along with the possible need to empirically test for *Talaromyces* in these patient populations given the high mortality rates of this fungal infection.

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