

An Emerging Case of Drug-Susceptible *Candida auris* in Thailand

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INTRODUCTION

Candida auris was classified as an emerging multidrug-resistant fungal pathogen, causing huge negative impacts in clinical outcomes and costs in global healthcare system. We reported the first emerging case of invasive infection by this threatening yeast in our hospital.

CASE PRESENTATION

A 56-year-old farmer with underlying diabetes mellitus, hypertension, and coronary disease was present at Maharaj Nakorn Chiang Mai Hospital, an affiliated hospital of Chiang Mai University, in 2014 with a right orbital mass, which was diagnosed as hemangiopericytoma. He returned in 2018 with tumor invasion into the brain. Surgical resection with orbital flap reconstruction was performed, then unfortunately complicated by post-operative cerebrospinal fluid leakage, epidural abscess, and recurrent flap infections. In September 2019, he was re-admitted due to severe surgical site and flap infection. Tissue cultures revealed polymicrobial infection while receiving broad-spectrum antimicrobial therapy. Interestingly, *Candida auris* was identified via MALDI-TOF and confirmed molecular identification, representing the first documented case at our institution. The patient received intravenous micafungin under contact isolation, followed by oral fluconazole for a total of six weeks when the minimum inhibitory concentrations (MICs) of antifungal susceptibility were reported. He was discharged with improved overall conditions, and complete resolution at his latest follow-up. The Short Tandem Repeat (STR) analysis identified this isolate as South Asian clade, same as another isolate in Bangkok with genotypic difference.

Figure 1. Infected wound before(left) and after(right) antifungal therapies



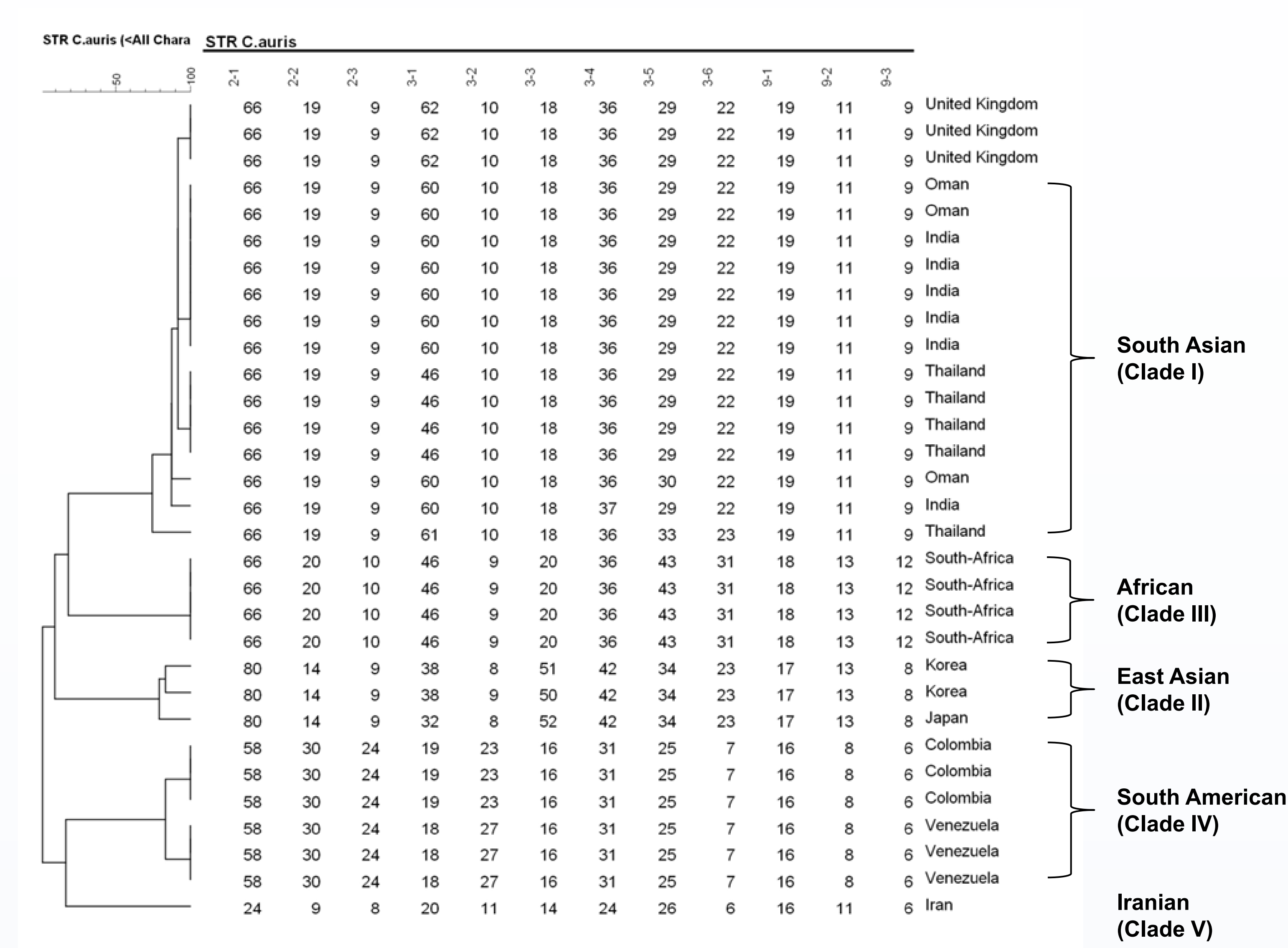
Figure 2. Minimal inhibitory concentrations (MICs) reports of *Candida* isolate

ISOLATE 1 : <i>Candida</i> species (<i>Candida auris</i>)	
Susceptibility	Isolate 1
	MIC (ug/ml)
5-Flucytosine	0.12 N
Amphotericin B	1 N
Anidulafungin	0.03 N
Caspofungin	0.03 N
Fluconazole	4 N
Itraconazole	0.12 N
Micafungin	0.03 N
Posaconazole	0.03 N
Voriconazole	0.03 N

N: No interpretation, D: Dose-dependent susceptible, S: Susceptible, I: Intermediate resistant, R: Resistant

CASE PRESENTATION (Cont.)

Figure 3. *Candida auris* typing by the Short Tandem Repeat (STR) analysis



CONCLUSIONS

Since first identification in 2009, *Candida auris* has become a global threats due to high potentials of transmission and antifungal-resistance abilities causing difficulties in treatment and prevention among affected countries. This report highlighted the emergence of South Asian clade *C. auris* infection in complicated post-surgical infections without fungemia, which was the first reported case in Thailand. There was no connection between this case and another fungemia case in Bangkok while the origins remained unclear. The patient responded well to both echinocandin and azole antifungal therapy after surgical debridement, compatible with MICs susceptibility reports.

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DISCLOSURES

- No conflicts of interest
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