

P2176 Species-specific epidemiology and outcomes in candidaemia diagnosed by T2Candida in a population with frequent detection of *Candida parapsilosis*

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Background: T2Candida (T2MR) is a rapid diagnostic test for identification of candidemia directly from blood samples. We noted a disproportionate increase in *C. parapsilosis* detected by T2MR and aimed to characterize and differentiate the epidemiology and outcomes relative to specific *Candida sp.*

Materials/methods: This was a retrospective cohort designed to compare culture concordance, risk factors, and outcomes in patients with positive T2MR at an academic multi-hospital health system in Detroit, MI, USA from November 2015 to June 2018. Subjects with *C. parapsilosis* detected were evaluated against other *Candida sp.* Predictors of mortality were determined with multivariable regression.

Results: *Candida sp.* were detected from blood by T2MR in 251 patients: 45.4% *C. albicans/tropicalis*; 23.5% *C. glabrata/krusei*; 38.2% *C. parapsilosis*. Patients with *C. parapsilosis* isolated from T2MR were less likely to have high Candida Scores, severe sepsis, positive concordant blood cultures, empiric antifungals, or mortality (Table 1). Initial echinocandin therapy reduced 30-day mortality (AdjOR=0.496 [0.247-0.995]) while cirrhosis (AdjOR=4.167 [1.709-10.162]), hypotension (AdjOR=7.433 [3.631-15.215]), age \geq 60 years (AdjOR=2.191[1.133-4.239]), and endovascular/ocular involvement (AdjOR=3.184 [1.262-8.031]) were independent predictors. Specific *Candida sp.* were not independently associated with mortality.

Conclusions: Initial echinocandin was independently associated with survival. Patients with *C. parapsilosis* identified by T2MR had lower pretest probability for invasive candidiasis. Judicious testing and with vigilant specimen collection and handling are warranted when using T2MR.

Variable n, (%)	<i>C. albicans/tropicalis</i> (n=96)	<i>C. glabrata/krusei</i> (n=51)	<i>C. parapsilosis</i> (n=86)	Multiple sp. (n=18)	p
Blood culture concordance	20 (20.8)	18 (35.3)	9 (10.5)	8 (44.4)	0.001
Candida score ≥ 3	45 (46.9)	26 (51.0)	26 (30.2)	13 (72.2)	0.003
ICU status	77 (80.2)	42 (82.4)	73 (84.9)	16 (88.9)	0.755
Cirrhosis	19 (19.8)	11 (21.6)	12 (14.0)	3 (16.7)	0.653
Dialysis	29 (30.2)	10 (19.6)	24 (27.9)	8 (44.4)	0.222
Neutropenia	6 (6.3)	6 (11.8)	5 (5.8)	1 (5.6)	0.563
Indwelling central-line	79 (82.3)	42 (82.4)	67 (77.9)	16 (88.9)	0.698
Endovascular/ocular involvement	15 (15.6)	8 (15.7)	5 (5.8)	5 (27.8)	0.042
Hours to antifungal, median (IQR)	0 (0—4)	0 (0—2)	3 (0—9.5)	2 (0—3.5)	0.001
30-day mortality	43 (44.8)	26 (51.0)	27 (31.4)	11 (61.1)	0.035

