

2267. Epidemiology of *Candida auris* Candidemia in a Teaching Hospital in North of Oman: One-Year Survival

Arash Eatemadi, Senior Specialist¹; Aiman Al Wahibi²; Hilal Al shibli³; Ali Al reesi⁴; ¹Sohar Teaching Hospital, Suhar, Shama al Batinah, Sultanate of Oman, ; ²Internal Medicine Specialist, Suhar, Shama al Batinah, Oman; ³Fellowship in ICU, Suhar, Shama al Batinah, Oman; ⁴Consultant Degree, Suhar, Shama al Batinah, Oman

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Background. Recent emergence of *Candida auris* as a multidrug resistant fungal pathogen, is a serious concerns for public health. However, there is a paucity of reported cases from Oman. Literature search resulted in finding only 7 cases from Oman, reporting *C. auris* infections in the articles first published in 2017. However, the rate of isolatin is increasing.

Methods. In this study, we included the results of all positive blood cultures of *C. auris* in Suhar teaching hospital from May 2018 (date of first detection) till end of April 2019. Further confirmation of the species was performed by MALDI-TOF and antibiotic susceptibility test (AST) by Vitek 2 in central public health laboratory (CPHL) of Oman.

Results. We detected 13 patients (9 females, 4 males). The mean age was 58.61% years (28–76 years). All candidemic patients had serious underlying conditions, including prolonged hospital stay or extensive and prolonged antimicrobial exposure or medical comorbidities (8 of 13). The time from hospital admission to onset of *C. auris* candidemia was 8–49 days, with a median of approximately 27 days. The most common isolated co- pathogen from blood culture was *K. pneumonia* (without regard to Coagulase-negative staphylococci). As average, every patient received 4.8 kind of different antibiotics in mean 88 doses before candidemia developed and piperacillin–tazobactam was the most common used antibiotics. AST was done just for 5 patients and revealed high-level resistance to fluconazole and Amphotericin B while, Echinocandins (anidulafungin, caspofungin) were fully sensitive and voriconazole had intermediate sensitivity. Mean duration of anti-fungal treatment was 12.5 days (5 – 26 days). 8 patients treated by Echinocandins (4/8 died), 4 by Fluconazole (3/4 died) and one without treatment discharged. 30-day all-cause mortality was 61.5%.

Conclusion. In Oman, *C. auris* has been reported from many hospitals. Resistance to several antifungal agents and persistence in the hospital environment make this organism a potential menace for the treating physician and the infection control personnel. In our hospital, every candidemic patient should be treated with Echinocandins and assumed to be resistant to Fluconazole until proven otherwise according to results of AST.

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2268. Clinical Implications of Azole-Resistant vs. Azole-Susceptible Invasive Aspergillosis in Hematological Malignancy (CLARITY): A Multicenter Study

Danila Seidel, PhD¹; Oliver Cornely, Prof²; Dorothee Arenz, Dr¹; Jacques Meis, Prof³; Jörg Vehreschild, Prof⁴; Jon Salmanton-Garcia, PhD student¹; Marouan Zarrouk, PhD¹; Iker Falces Romero, PhD⁴; Zdenek Racil, Prof⁵; Katrien Lagrou, Prof⁶; Johan Maertens, Prof⁶; Agustin Reséndiz Sharpe, PhD Student⁴; Ola Blennow, Prof⁷; Cornelia Lass-Flörl, Prof⁸; Yohann Legovic, Dr⁹; Alen Ostojic, Dr¹⁰; Guillaume Desoubeaux, Prof¹¹; Nael Alakel, Dr¹²; Enrico Schalk, Prof¹³; Anne Bergeron-Lafaurie, Dr¹⁴; Jörg Steinmann, Prof¹⁵; Dieter Buchheidt, Prof¹⁶; Marta Stanzani, Prof¹⁷; Nikolai Klimko, Prof¹⁸; Jürgen Prattes, Dr¹⁹; Willem Melchers, Prof²⁰; Maria Vehreschild, Prof²¹; Paul Verweij, Prof²²; ¹University Hospital of Cologne, Cologne, Nordrhein-Westfalen, Germany; ²University of Cologne, Faculty of Medicine and University Hospital Cologne, Cologne, Nordrhein-Westfalen, Germany; ³Canisius Wilhelm Hospital, Nijmegen, Gelderland, Netherlands; ⁴Hospital Universitario La Paz, Madrid, Spain; ⁵Faculty Hospital Brno, Brno, Moravskoslezsky kraj, Czech Republic; ⁶KU Leuven, Leuven, Vlaams-Brabant, Belgium; ⁷Karolinska University Hospital, Stockholm Lan, Sweden; ⁸Medical University of Innsbruck, Innsbruck, Tirol, Austria; ⁹University Hospital Angers, Angers, Pays de la Loire, France, ¹⁰University Hospital Centre Zagreb, Zagreb, Zagrebbacka, Croatia, ¹¹University of Tours, Tours, Pays de la Loire, France, ¹²University Hospital Dresden, Dresden, Sachsen, Germany, ¹³Otto-von-Guericke University, Magdeburg, Thuringen, Germany, ¹⁴Université Paris Diderot, APHP Saint-Louis Hospital, Paris, Ile-de-France, France, ¹⁵Paracelsus Medical University, Nuremberg, Bayern, Germany, ¹⁶Mannheim University Hospital, Heidelberg University, Mannheim, Baden-Württemberg, Germany, ¹⁷Lorenzo e Ariosto Seragnoli S'Orsola-Malpighi Hospital, University of Bologna, Bologna, Emilia-Romagna, Italy, ¹⁸North Western State Medical University, Saint Petersburg City, Russia, ¹⁹Medical University of Graz, Graz, Steiermark, Austria, ²⁰Radboud University Medical Center, Nijmegen, Gelderland, Netherlands, ²¹Goethe University Frankfurt, Frankfurt am Main, Hessen, Germany

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Background. In recent years, survival of patients with invasive aspergillosis (IA) has improved mainly due to availability of extended spectrum triazoles. These advances are jeopardized by the emergence of azole resistance in *Aspergillus*

fumigatus, the most common causative pathogen of IA. Despite several studies suggesting high probability of azole treatment failure in patients with azole-resistant isolates, the clinical implications of azole-resistant IA compared with azole-susceptible IA remain unclear.

Methods. In patients with hematological malignancies, cases of proven or probable IA (EORTC/MSG 2008) caused by *A. fumigatus* are registered. Retrospective data are documented, comprising demographics, diagnosis, treatment, response and outcome. Participating sites provided susceptibility results or isolates. Provided isolates were analyzed in a central laboratory.

Results. Since January 2018, 51 sites in 15 countries worldwide enrolled 154 cases diagnosed with IA between 2010 and 2019, of which 23 (14.9%) had azole-resistant IA. Of 44 cases, the respective clinical fungal isolate was analyzed in the central laboratory. A mixed fungal infection was reported for 34 patients (22.1%), 1 (2.9%) in the azole-resistant group; most were related to non-*fumigatus Aspergillus* species ($n = 12, 35.3\%$) and non-*Aspergillus* molds ($n = 10, 29.4\%$). Most patients were male ($n = 98, 63.6\%$); 19 (82.6%) in the azole-resistant group, 79 (60.3%) in the azole-susceptible group. Age was documented in categories instead of the exact age. Median age group was 50–69 years in both groups (ranging from 7–11 to 70–89 years for azole-resistant cases, 1–12 months to 70–89 years for azole-susceptible cases). Underlying disease and survival are shown in the table.

Conclusion. A worldwide network of investigators contributes to the CLARITY registry study. Completion of recruitment and subsequent data analysis are planned for 2019. Further sites may be added if azole-resistant cases are encountered.

Patient characteristics

n (%)	Azole-resistant 23 (14.9)	Azole-susceptible 131 (85.1)	Total 154 (100)
Hematologic malignancy n (%)			
Acute leukemia	11 (47.8)	61 (46.6)	72 (46.8)
Chronic leukemia	1 (4.3)	9 (6.9)	10 (6.5)
Lymphoma	3 (13.0)	32 (24.4)	35 (22.7)
Multiple myeloma	1 (4.3)	9 (6.9)	10 (6.5)
Other	7 (30.4)	20 (15.3)	27 (17.5)
Survival status n (%)			
Missing values	0 (0)	2 (1.5)	2 (1.3)
Deceased	18 (78.3)	68 (51.9)	86 (55.8)
Alive	5 (21.7)	61 (46.8)	66 (42.9)

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2269. Clinical Outcomes in Patients with Carbapenem-Non-Susceptible, β -Lactam-Susceptible *Pseudomonas aeruginosa* Infections

Victoria M. Gavaghan, PharmD Candidate, Class of 2020¹; Michelle Lee, PharmD Candidate, Class of 2021¹; David Butler, PharmD¹; Mark Biagi, PharmD²; Maressa Santarossa, PharmD, BCPS, BCIDP²; Amanda Harrington, PhD³; Fritzie S. Albarillo, MD²; Eric Wenzler, PharmD⁴; ¹University of Illinois at Chicago College of Pharmacy, Chicago, Illinois; ²Loyola University Medical Center, Chicago, Illinois; ³Loyola University & Medical Center, Maywood, Illinois; ⁴University of Illinois at Chicago, Chicago, Illinois

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Background. *Pseudomonas aeruginosa* (PsAr) isolates harboring OprD mutations often present phenotypically as carbapenem nonsusceptible but susceptible to antipseudomonal β -lactams (APBLs). It is unknown whether this unique genotype–phenotype combination affects the clinical outcomes of patients infected with these pathogens. The objective of this study was to compare clinical outcomes of patients treated with APBLs for pneumonia and/or bacteremia caused by PsAr bearing this unique carbapenem nonsusceptible, β -lactam susceptible phenotype (Carba-NS) to those retaining susceptibility to both carbapenems and APBLs (Carba-S).

Methods. Retrospective multicenter cohort of adult in-patients who received effective APBL for PsAr pneumonia and/or bacteremia from January 2012 to November 2018. Baseline characteristics, treatment information, and clinical outcomes were obtained from the electronic medical record. The primary outcome was 14-day mortality. Secondary outcomes included 30-day mortality, 30-day infection recurrence, and infection-related length of stay (IR-LOS). IR-LOS was defined as the time from index culture to antibiotic discontinuation or hospital discharge, whichever was sooner. Descriptive statistics were analyzed using SPSS.

Results. 387 patients were evaluated; 60 Carba-S and 21 Carba-NS were included. The primary reason for exclusion was ineffective empiric therapy. Select demographics and clinical outcomes are displayed in Table 1. Compared with the Carba-S group, Carba-NS patients were younger, had better renal function, increased incidence of pneumonia, more severely ill, and higher rate of empiric ceftazidime use. Despite these differences at baseline there were no significant differences in empiric APBL treatment patterns, 14- or 30-day mortality, or recurrence at 30 days between the groups. Carba-NS patients had lower rate of oral step down therapy and a significantly longer LOS and IR-LOS.

Conclusion. In this cohort of patients who received appropriate and timely APBL therapy, the Carba-NS phenotype was not associated with increased rates of 14-day mortality, 30-day mortality, or 30-day infection recurrence. These data suggest that APBLs may be effective therapeutic options against this phenotype. Further research is warranted to confirm these findings.