

of poor outcomes remain incompletely characterized. We questioned whether markers of CMV replication (CMV peak viral load, recurrent episodes, or duration of CMV DNAemia) are associated with adverse outcomes in the current era.

Methods. We studied 605 people who underwent kidney transplant at Johns Hopkins University (2010 – 2018). Mean follow-up was 45.5 months. The average age was 51.85 years and 39.7% were female. Donor-seropositive, recipient seronegative (D+/R-) patients received valganciclovir 900 mg/day for 6 months, while R+ patients received valganciclovir 450 mg/day for 3 months. CMV recurrence was defined as CMV DNAemia after two undetectable CMV PCR's. Outcomes of acute rejection, graft failure, and death were evaluated in univariate analysis; p values were calculated by Fisher's exact test.

Results. Peak CMV viral load was not associated with any outcomes (Table 1). There was a trend of increased graft failure in people who had long duration (>6 month) DNAemia (Table 2). More than two episodes of CMV reactivation was associated with graft failure and rejection (Table 3).

Table 1. Peak CMV viral load

Peak CMV Viral Load*	No CMV (n=493)	<10,000 (n=75)	10-50,000 (n=14)	50-100,000 (n=1)	>100,000 (n=23)	p value**
Rejection	83 (16.8%)	22 (29.3%)	3 (21.4%)	0	3 (13%)	0.78
Graft failure	62 (12.6%)	19 (25.3%)	2 (14.3%)	0	3 (13%)	1.0
Death	60 (12.2%)	13 (17.3%)	2 (14.3%)	0	5 (21%)	0.19

*IU/mL, from 4/2013; DNA copies/mL before ** Comparison of viral load >100,000 vs no CMV

Table 2. Duration of CMV DNAemia

Duration of DNAemia*	No CMV (n=493)	0 – 2 months (n=64)	2 - 6 months (n=29)	> 6 months (n=19)	p value**
Rejection	83 (16.8%)	17 (26.6%)	5 (17.2%)	6 (31.6%)	0.12
Graft failure	62 (12.6%)	17 (26.6%)	2 (6.9%)	5 (26.3%)	0.09
Death	60 (12.2%)	14 (21.9%)	2 (6.9%)	4 (21.1%)	0.27

*First positive to last positive CMV DNA ** Comparison of > 6 months vs the no CMV group

Table 3. CMV Recurrences

# of CMV episodes	No CMV (n=493)	1 episode (n=87)	2 episodes (n=16)	> 2 episodes (n=9)	p value*
Rejection	83 (16.8%)	21 (24.1%)	3 (18.8%)	4 (44.4%)	0.05
Graft failure	62 (12.6%)	19 (21.8%)	1 (6.3%)	4 (44.4%)	0.02
Death	60 (12.2%)	16 (18.4%)	3(18.8%)	1 (11.1%)	1.0

*Comparison of > 2 episodes vs no CMV

Conclusion. CMV reactivation is associated with kidney rejection and failure in univariate models. Multivariate analyses and longitudinal modeling will provide increased data upon which to better instruct preventative strategies.

Acknowledgments. Funding for the research study was provided by Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc., Kenilworth, NJ, USA

Disclosures. Robin K. Avery, MD, Aicuris (Grant/Research Support)Astellas (Grant/Research Support)Chimerix (Research Grant or Support)Merck (Grant/Research Support)Oxford Immunotec (Grant/Research Support)Qiagen (Grant/Research Support)Takeda/Shire (Grant/Research Support) Yuexin Tang, PhD, JnJ (Other Financial or Material Support, Spouse's employment)Merck & Co., Inc. (Employee, Shareholder) Kieren Marr, MD, Merck (Grant/Research Support, Advisor or Review Panel member)

945. Bacteremia in Patients with Solid Tumors: Epidemiology, Clinical Features and Risk Factors for Mortality. Results from a Multicenter Study in Argentina

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Argentinean Bacteremia in Cancer and Hematopoietic Stem Cell Transplant Study Group

Session: P-53. Infections in Immunocompromised Individuals

Background. Current information regarding bacteremia in patients with solid tumors is scarce

Methods. To assess the etiology, clinical features and outcome in patients with solid tumors and bacteremia, we carried out a prospective multicenter study. Episodes of bacteremia in adult cancer patients in 9 centers, from May 2014 to February 2021, were recorded. To identify factors associated with 30-day mortality, variables with p < 0.05 in univariate analysis were included in a logistic regression model for multivariate analysis

Results. Three hundred and thirty-two episodes of bacteremia were included, with 51% being women (mean age 59). The state of underlying disease was: recent diagnosis 27%, remission 27%, relapsed 29% and refractory 17%. Seventy-three percent had received chemotherapy in the last 30 days, 25% were receiving steroids. Neutropenia was present in 23% (mean duration 3 days). The most frequent sources were: abdominal 39%, urinary tract 21%, respiratory 15%, catheter 10% and skin and soft tissue 9%. The microorganisms were: Gram negative bacilli (GNB) 67% (Enterobacterales 84%), Gram positive cocci 36% (*Staphylococcus aureus* 33%) and polymicrobial 11%; 20% were multidrug resistant organisms (MDR-O), being 88% of them GNB (MDR-GNB). ESBL and KPC carbapenemase producing were the most frequent mechanisms of resistance. Mortality at day 7 and day 30 was 16% and 27%, respectively. In the univariate analysis, the risk factors for 30-day mortality were Charlson index, refractory underlying disease, use of steroids, polymicrobial bacteremia, *Staphylococcus aureus*, GNB resistant to carbapenems, APACHE and Pitt scores, hypotension, respiratory source and ICU admission. In multivariate analysis, risk factors for 30-day mortality were refractory underlying disease, GNB resistant to carbapenems and ICU admission, while 7-day clinical response was associated with lower mortality

Conclusion. Bacteremia is a serious complication in cancer patients, with high mortality. The state of underlying disease, infection caused by GNB resistant to carbapenems, and the severity of presentation are associated with increased mortality. Our results stress the importance of infection control measures and antibiotic stewardship to prevent colonization with MDR-O

Disclosures. All Authors: No reported disclosures