Conclusion. DDTB presents early as febrile illness after SOT, and carries a high mortality risk. Donors should be screened, with particular attention to risk factors.

Table 1: Summary of Characteristics of Donors and Recipients With DDTB

Characteristics	*N* (% or range)
Age, year	48 (23–68)
Gender, M (*N* = 35)	21 (60)
Type of transplant	
Kidney	13 (36.1)
Liver	6 (16.7)
Lung/heart–lung	16 (44.4)
Heart	1 (2.8)
h/o T-cell depleting agent (*N* = 9)	5 (55.6)
h/o acute rejection (*N* = 19)	11 (57.9)
Immunosuppressive regimen w/	8 (38.1)
Cyclosporine (*N* = 21)	
Donor characteristics, *N* = 28	
Deceased	24 (85.7)
Living	2 (7.1)
Not specified	2 (7.1)
Donor risk factor for TB[a]	
Latent or active TB	5
Residence in endemic country	13
Socio-economic[b]	5
None	5
Type of TB	
Pulmonary	13 (36.1)
Extrapulmonary	10 (27.8)
Disseminated	13 (36.1)
Type of DDTB	
Proven	17
Probable	8
Possible	11
Clinical presentation (*N* = 33)	
Fever	20 (60.6)
Other[c]	13 (39.4)
Time to diagnosis, med in months	2.7 (0.2–29)
Diagnosis, *N* = 34[a]	
AFB smear or culture	30
Histopathology	8
PCR	2
Outcome	
Graft loss or failure (*N* = 22)	4 (18)
Death	9 (25)

[a]may have more than one. [b]Homelessness, incarceration, alcohol abuse, and travel.

[c]Pain (2), cough/dyspnea (3), Effusion (1), nephritis (1), nausea (1) no symptoms (5), NR,– not reported.

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1537. Reactivation of Latent Cytomegalovirus Infection in Patients with Rheumatologic Disease: A Case–Control Study

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Background. While there are emerging reports of cytomegalovirus (CMV) disease in patients with underlying rheumatic conditions, the disease burden, risk factors and clinical sequelae in this population are poorly understood. We sought to describe a cohort of patients with underlying rheumatic disease and CMV infection, then compare those with systemic lupus erythematosus (SLE), the largest subgroup, using case–control methodology to identify risk factors for reactivation and differences in outcomes.

Methods. Adults with rheumatic disease and CMV reactivation diagnosed by viral load, viral culture or histopathology from Tufts Medical Center between 2000 and 2015 were identified. Due to SLE cases comprising 43% of the total, these patients were matched 3:1 with SLE controls based on age, sex and year of admission.

Results. Fourteen patients with rheumatic disease and CMV were included (six SLE, four rheumatoid arthritis, two sarcoid, one psoriatic arthritis, one microscopic polyangiitis). Seven patients had viremia alone and the remainder had tissue-invasive disease (four gastrointestinal, three pulmonary). Thirteen (93%) received corticosteroids within 3 months prior to CMV reactivation. Fever (86%) was the most common symptom. Coinfections were seen in eight (57%), including four with bacteremia. Thirteen (93%) were treated with antiviral therapy for a median of 33 days (range 13–171). Relapse occurred in three patients and four died during hospitalization. Six patients with underlying SLE and CMV reactivation were compared with 18 controls. Cases received significantly more corticosteroids during the 8-week period prior to admission (median 36.5 vs. 2.5 mg/day, $P = 0.006$), had longer hospitalizations (median 46.5 vs. 6.5 days, $P = 0.006$) and more frequent co-infections (67% vs. 17%, $P = 0.04$). There were no significant differences in symptoms at presentation.

Conclusion. CMV reactivation occurs in patients with rheumatic disease, and can result in severe clinical sequelae that may be difficult to distinguish from a flare of the underlying disease. Patients with CMV were more likely to have received high doses of corticosteroids, and developed more co-infections during their hospitalization. Clinicians should consider this diagnosis during the evaluation of a febrile illness in the rheumatologic population.

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1538. High Mortality of Cytomegalovirus (CMV) Pneumonia in Hematopietic Cell Transplant Recipients

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Background. CMV infection remains a leading cause of morbidity and mortality in allogeneic hematopoietic cell transplant (allo-HCT) recipients. CMV can cause tissue-invasive disease, especially pneumonitis, with poor outcomes.

Methods. We performed a retrospective study in HCT recipients who had CMV pneumonia between January 2014 and December 2017. The microbiology laboratory records were queried to identify patients with CMV pneumonia based on CMV viral culture and CMV viral load (VL) in plasma and in bronchoalveolar lavage (BAL). Data on demographics, clinical characteristics, management and mortality were collected.

Results. A total of 23 patients were diagnosed with CMV pneumonia and nine (39%) were male, with a median age of 59 years (range 18–83), and median time from HCT to CMV pneumonia of 104 days (range 25–1,177). Most patients had an allo-HCT (20, 87%) and three (13%) had an autologous HCT. All patients except one were CMV seropositive, 13 (57%) were on steroids and eight (42%) had GVHD. The median plasma CMV VL at diagnosis was 137 UI/mL (range: 0–6,586) while the median VL in BAL was 1,700 UI/mL (range 79–64,800) (Figure 1). Foscarnet was the most common antiviral agent used (12, 52%) followed by ganciclovir (7, 30.4%). Seventeen (81%) patients received combination therapy with IVIGs with a mean number of doses of 4 (range, 1–7). All-cause mortality was 87% and CMV-associated mortality was 52%. The median VL in BAL in patients with CMV-associated mortality was higher (12,340 vs. 2,863 IU/mL, $P = 0.059$) than the remaining cohort.

Conclusion. CMV pneumonia remains a significant cause of mortality after HCT. The correlation between CMV VL in BAL and plasma was poor. High CMV VL in BAL was associated with fatal outcome.

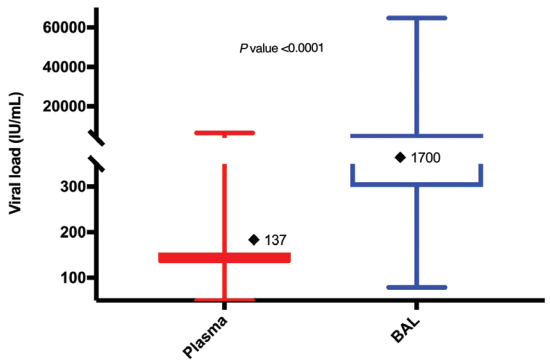

Figure 1: Comparison between median of CMV Viral load PCR in plasma and BAL by Mann-Whitney test. ◆ Median CMV PCR Viral Load, Abbreviation: BAL, Bronchoalveolar lavage; IU, International Unit.

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1539. Diagnosis of *Yersinia enterocolitica* in Cancer Patients With Diarrhea in the Era of Molecular Diagnostics for Gastrointestinal Infections

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