Results. There were 120,654 incident cases of HZ seen in hospital or emergency department during the study period. Immunocompromised adults accounted for 13% of these cases despite representing only 3% of the population. The risk of HZ was higher for immunocompromised adults compared with immunocompetent (IRR = 2.8, 95% CI 2.8–2.9) and ranged across type of immunocompromising condition (from 2.4 [95% CI 2.3–2.5] in those with a solid tumor malignancy to 11.0 [95% CI 10.0–12.0] in those who had undergone a hematopoietic stem cell transplant). The risk of any HZ complication was also higher in immunocompromised adults (IRR = 3.5, 95% CI 3.4–3.6) and was highest for disseminated zoster (IRR = 31.5, 95% CI 26.3–37.5).

Conclusion. The risk of HZ and related complications was higher in immunocompromised populations compared with immunocompetent. Our findings underscore the high-risk nature of this population and the potential benefits that may be realized through HZ vaccination of this group.

Disclosures. **All authors:** No reported disclosures.

1760. Outcomes of Acyclovir-Resistant Herpes Simplex Virus Infections in Hematologic Malignancies and Hematopoietic Cell Transplant

Justine Abella. Ross, PharmD; Jana Dickter, MD; Bernard Tegtmeier, PhD; Sanjeet Dadwal, MD; City of Hope National Medical Center, Duarte, California

Session: 169. Transplant ID: Viral, Mycoplasma/Ureaplasma Infections
Friday, October 4, 2019: 12:15 PM

Background. Acyclovir-resistant (ACVr) herpes simplex virus (HSV) infection management is a challenge in patients with hematologic malignancies (HM) and hematopoietic cell transplant (HCT) recipients.

Methods. Retrospective review of patients aged ≥ 18 years with underlying HM and/or HCT and culture-positive ACVr HSV between 1/1/2009 and December 1/2017 at a tertiary cancer center. Clinical, laboratory, microbiological, and treatment data collected.

Results. 33 patients identified; 25 (76%) acute leukemias, 3 (9%) chronic myeloid leukemia/chronic lymphocytic leukemia (CML/CLL), 3 (9%) lymphoma, 2 (6%) other HM, and 32 (97%) had HCT. Median age of patients was 59 years (25–73) and 64% of them are females. HCT type: 22 (67%) matched unrelated donor, 3 (9%) cord blood, and 7 (21%) matched related donor. All patients were on acyclovir prophylaxis prior to diagnosis. The median time to onset of ACVr HSV infection was 147 days after transplant. Infection site: 16 (49%) oral, 10 (30%), ano-genital, 5 (15%) oral and esophagus/lung, 2 (6%) esophagus/lung. Pertinent laboratory data on day of viral culture (median/range): white blood cell (WBC) 4.6 cells/μL (0.1–85.9), absolute neutrophil count (ANC) 2,316 cells/μL (0–17,000), absolute lymphocyte count (ALC) 574.5 cells/μL (0–84,182). Serum creatinine at start and end of treatment are 0.8 mg/dL (0.32–1.98) and 0.92 mg/dL (0.36–2.7), respectively. The median duration of treatment was 30 days (4–116). Treatment: 20 (61%) foscarnet, 2 (6%) cidofovir, 4 (12%) foscarnet and cidofovir, 1 (3%) valacyclovir, 5 (15%) high-dose acyclovir, 1 (3%) unknown. 8 (24%) received adjunctive topical therapy: 5 imiquimod, 3 cidofovir. 31 included in outcome analysis (data missing in 2). Infection resolved in 15/31 (48%) while 5/31 (16%) had persistent infection. Median ANC and ALC in those with resolved vs. persistent infection (respectively): 3,082 cells/μL and 642 cells/μL vs. 1,895 cells/μL and 380 cells/μL with a trend toward lower ANC and ALC in patients with persistent infection. Overall mortality was 35% (9/31) while ACVr HSV attributable mortality was 6.4% (2/31).

Conclusion. ACVr HSV is predominantly encountered in allogeneic HCT, particularly the unrelated donor recipients, and lower ANC/ALC may predispose to persistent infection.

Patient Characteristics (N=33)	
Age (median)	59 years old (25-73)
Female (%)	64%
Diagnosis	
AML/MDS	16 (48%)
ALL	9 (27%)
Lymphoma	3 (9%)
CML/CLL	3 (9%)
Other*	2 (6%)
HM or HCT Type	
Allogeneic	32 (97%)
Matched unrelated	22 (67%)
Matched related	7 (21%)
Cord	3 (9%)
Autologous	0 (0%)
CLL	1 (3%)
Site of Infection	
Oral	16 (49%)
Ano-genital	10 (30%)
Oral and deep organ*	5 (15%)
Deep organ*	2 (6%)
Labs	
WBC median)	4.6 (0.1-86)
ANC (median)	2316 (0-17,000)
ALC (median)	574.5 (0-84,000)
Baseline Scr	0.8 (0.32-1.98)
End of treatment Scr	0.92 (0.36-2.7)
Onset of infection	147 days
Treatment	
Foscarnet	20 (61%)
Cidofovir	2 (6%)
Foscarnet or cidofovir	4 (12%)
Acyclovir	5 (15%)
Valacyclovir	1 (3%)
Unknown	1 (3%)
Adjunct therapy	
None	24
Topical cidofovir	5
Topical imiquimod	3
Topical acyclovir	1
Treatment duration (days)	30 days (4-116)

AML= acute myeloid leukemia, ALL = acute lymphocytic leukemia, CML = chronic myeloid leukemia, CLL = chronic lymphocytic leukemia; IDyskeratosis Congenita, Myelofibrosis; HM= hematologic malignancy; HCT= hematopoietic cell transplant;; *deep organ = esophageal or lung involvement; WBC = white blood cell count; ANC = absolute neutrophil count; ALC = absolute lymphocyte count; Scr = serum creatinine

Outcomes (n=31)	
Resolution	15 (48%)
Persistent HSV disease	5 (16%)
Mortality due to HSV	2 (6.4%)
Overall mortality	11 (35%)

Disclosures. **All authors:** No reported disclosures.

1761. A Single-Center Experience with Cidofovir for the Treatment of Double-Stranded (ds) DNA Viruses in Hematopoietic Cell Transplant (HCT) Recipients

Anat Stern, MD[1]; Yiqi Su, MS[1]; Dionysis Neofytos, MD[2]; Genovefa Papanicolaou, MD[1]; [1]Memorial Sloan Kettering Cancer Center, New York, New York; [2]University Hospital of Geneva, Geneva, Geneve, Switzerland

Session: 169. Transplant ID: Viral, Mycoplasma/Ureaplasma Infections
Friday, October 4, 2019: 12:15 PM

Background. Cidofovir (CDV), a nucleotide analog antiviral, is active against multiple dsDNA viruses relevant in HCT recipients. Despite a broad spectrum of activity, CDV utility is limited due to nephrotoxicity. We describe our experience with CDV in a large contemporary cohort from a single Institution.

Methods. Retrospective review of adult HCT recipients who received CDV for any indication from 2011 to 2017. Initiation and duration of CDV treatment were at physicians' discretion. CDV exposure and indications, Serum Creatinine (SCr) and outcomes were extracted from medical records and hospital databases.

Results. Of 1,235 HCT recipients, 54 (4.4%) received ≥1 dose of CDV. Stem cell source was peripheral blood in 39 (72%) patients, cord blood in 13 (24%) and marrow in 2(4%); 42 (78%) patients received CD34+ selected HCT. At CDV initiation, 23 (43%) patients had active GvHD and 16 (30%) received systemic steroids. CDV was started a median of 85.5 days (range 14–335) post HCT, given for a median of 3 doses (range 1–13) for a median of 2 weeks (range 1–17). Indications were adenovirus (ADV) infection in 35 patients, CMV in 19, BK virus in 21 and HHV6 in 3 patients. Nineteen (35%) patients had >1 dsDNA virus. Forty-one (76%) patients received CDV (3–5 mg/kg) once weekly, mainly for ADV or CMV, and 13 received CDV (≤1 mg/kg) once to thrice weekly, mostly for BK hemorrhagic cystitis (N = 12).

Baseline sCr was mean 0.88 mg/dL (standard deviation [SD] = 0.37) at CDV initiation, mean 1.07 mg/dL at end of treatment (EOT) (SD = 0.57, N = 48, P = 0.004) and mean 1.23 mg/dL at EOT + 2 weeks (SD = 0.72, n = 28, P = 0.027). At EOT, 13 patients (24%) had acute kidney injury (AKI, ≥1.5-fold increase from baseline sCr). Of those, 12 (92%) received concomitant nephrotoxic drugs. AKI was attributed to other etiologies by treating physician in six patients. Of 51 patients with follow-up at EOT, 29 (57%) had clinical response to CDV treatment. Nineteen (35%) patients died ≤ 4 weeks from last CDV dose.

Conclusion. 24% of highly immunocompromised HCT patients experienced AKI following CDV treatment for dsDNA viruses. The co-administration of nephrotoxic medications and the direct effect of infection limit our ability to assess the relative impact of CDV on renal function. Our data underscores the need for safer treatment options for HCT patients with life-threatening infections with dsDNA viruses.

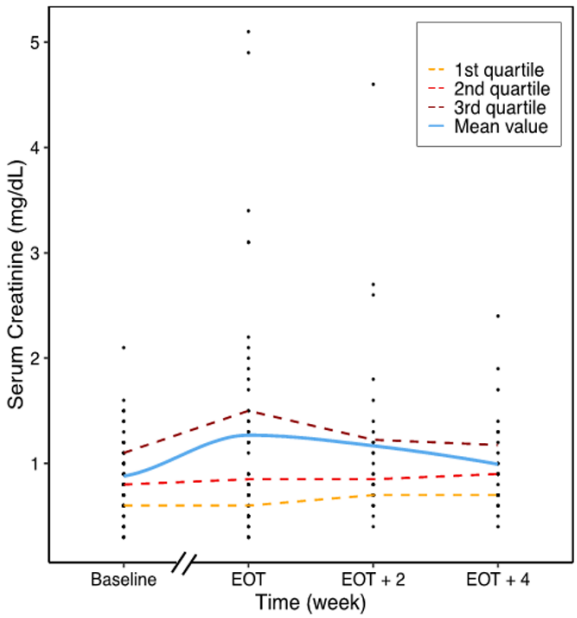

Figure 1: Creatinine at baseline (day of first cidofovir dose ± 1), End of treatment (EOT), EOT + 2 weeks and EOT + 4 weeks.