undertaken to assess whether the MBNW test can be used as an early marker of BO in asymptomatic pts.

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LATE ONSET NON-INFECTOUS PULMONARY COMPLICATIONS (LONIPC) IN ADULT ALLOGENEIC HEMATOPOEITIC CELL TRANSPLANT (HCT) RECIPIENTS

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LONIPC after allogeneic HCT can contribute to post-transplant morbidity and mortality and decreased quality of life. We reviewed data for LONIPC in 451 consecutive adult patients who received an allogeneic HCT between 2002 and 2007 and survived for ≥80 days after HCT. Seventy four patients developed LONIPC at a median of 177 (range, 81-1017) days after HCT; 1-year cumulative incidence of LONIPC was 13% (95% CI, 10%-16%). LONIPC occurred among 21.3% of myeloablative and 12.6% of non-myeloablative HCT recipients. Graft sources were 49% related donor, 45% umbilical cord blood and 51% unrelated donor. Acute GVHD had occurred in 49%. 53% of patients had a prior history of or concomitant chronic GVHD. Four groups of LONIPC were observed: diffuse alveolar hemorrhage (DAH, n = 28), idiopathic pneumonia syndrome (IPS, n = 19), bronchiolitis obliterans (BO, n = 22) and other (n = 5). A greater proportion of patients with LONIPC had received myeloablative conditioning compared to patients who did not develop LONIPC (57% vs 41%, p = 0.01); the two groups were otherwise comparable. Overall survival at 1-year and 3-years after HCT was significantly decreased for recipients with LONIPC compared to those without LONIPC (1 year OS 51% vs. 76%, p < 0.01) and (3 years OS 34% vs 57%, p < 0.01). 45% of recipients with LONIPC survived 6 months after developing lung complication. Among patients with LONIPC, those with DAH and IPS had worse survival at 1-year after HCT compared to patients with BO (36% vs. 37% vs. 77%, p < 0.01). LONIPC in allogeneic HCT recipients consists of a heterogeneous group of diseases with varying clinical course and prognosis. LONIPC is associated with increased mortality among HCT receipients.Further understanding of the pathogenesis of each of these entities is still required.

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NEPHROTIC SYNDROME AFTER ALLOGENEIC HEMATOPOIETIC CELL TRANSPLANTATION: INCIDENCE AND OUTCOMES

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The NIH Consensus recognizes nephrotic syndrome (NS) as part of the chronic GVHD symptomatology, however the incidence and outcomes of this manifestation have not been well-defined. To characterize this complication, we conducted an IRB-approved retrospective review of 626 consecutive patients (age > 16 yrs: [MRD], n = 352; [MUD], n = 274) who underwent allogeneic hematopoietic cell transplantation (HCT) between October 2000 and December 2007 at the University of Michigan. Conditioning regimens included full intensity (FIC) in 470 patients and reduced intensity (RIC) in 156 patients. Nephrotic range proteinuria was identified in 17 patients. Renal biopsy confirmed the diagnosis in seven of these patients. The median time to onset of NS was 7.3 months following HCT. Clinical manifestations included hypoalbuminemia (100%), hypercholesterolemia (82%), edema (76%), renal impairment (65%), and thrombosis (29%). The overall cumulative incidence of NS was 2.9%: 2.4% in FIC and 4.6% in RIC HCT recipients; and 2.3% in MRD and 3.7% MUD HCT recipients. Of note, in patients who received irradiation-based conditioning regimens, there was an increased cumulative incidence of NS compared to those who did not, 4.8% versus 2.1%, respectively.

Diagnostic symptoms of chronic GVHD based upon the NIH Consensus was seen in 11 patients (65%). Prior history of acute GVHD was seen in 11 patients (65%). Interestingly, history of symptomatic cystitis was seen in 9 patients (53%), eight of whom had BK virus detected in the urine. All of the patients received systemic steroids (0.25 mg/kg – 2 mg/kg), with or without mycophenolate mofetil and a calcineurin inhibitor. Additional therapy with rituximab was administered in nine patients. Durable remission with no further recurrence of proteinuria was observed in 47% of the patients (n = 8). The median time to response was 4.8 months. Recurrence of proteinuria was seen in 29% of the patients (n = 5), and primary refractory proteinuria was observed in 23% of the patients (n = 4). Overall survival for the cohort was 49.5% at 4 years with median follow up of 5.1 years. The median survival from diagnosis of NS was 2.5 years. As of May 2009, eight patients are alive and nine have died. The causes of death include GVHD (n = 6), relapse (n = 2) and unknown (n = 1). NS is a rare but important complication following allogeneic HCT. Early recognition of the clinical presentations and risk factors may limit the potential morbidity and mortality associated with NS.

Patients characteristic

Patient	MUD/ MRD	Age at Transplant	DX	Proteinuria estimate (g/24 h)	Gender	GVHD Regimen	Kidney Biopsy
1	MUD	53	MPD	5.5	F	Tacro/MTX	Minimal cange GN
2	MUD	56	MM	14	M	Tacro/MTX	Memberanous GN
3	MRD	57	MDS	14	M	Tacro/MTX	Memberanous GN
4	MUD	55	AML	3.4	M	Tacro/MTX	N/A
5	MRD	30	NHL	3.74	M	Tacro/MTX	Memberanous GN
6	MRD	47	AML	10	M	Tacro/MTX	Memberanous GN
7	MUD	49	NHL	6.9	M	Tacro/MMF	N/A
8	MUD	38	AML	8.7	F	Tacro/MMF	N/A
9	MUD	18	Aplastic Anemia	4.22	F	Tacro/MTX	N/A
10	MRD	34	AML	5.96	F	Tacro/MTX	N/A
11	MUD	61	MDS	13.27	M	Tacro/MTX	N/A
12	MRD	26	CMML	3.58	F	Tacro/MMF	N/A
13	MRD	63	NHL	4.54	F	Tacro/MMF/ MTX	N/A
14	MUD	55	AML	22.57	M	Tacro/MTX/ Etanercept	Minimal Change GN
15	MRD	59	NHL	3.37	M	Tacro/MMF	N/A
16	MRD	62	AML	5.47	F	Tacro/MMF /MTX	Memberanous GN
17	MUD	46	AML	7.96	F	Tacro/MTX/ Etanercept	N/A

MUD = matched unrelated donor; MRD = matched related donor; GN = glomerulonephritis; NA = non applicable; MTX = methotrexate; MMF = mycophenolate mofrtil;

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UTILIZATION OF PREVENTIVE CARE SERVICES BY HEMATOPOIETIC CELL TRANSPLANT SURVIVORS

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Background and Methods: Screening and preventive care guidelines are available for survivors of autologous and allogeneic hematopoietic cell transplantation (HCT). We assessed adherence to these guidelines with a mailed questionnaire sent to all adult survivors in the Fred Hutchinson Cancer Research Center database, and examined factors associated with adherence.

Results: Of 3780 survivors after HCT, 1849 (49%) responded. Median age of respondents at the time of the survey was 55.3 years (18.2-81.2). 53% were male, 90% White, 68% allogeneic recipients, and the median time elapsed since transplant was 8.1 years (0.2-38.1). Younger age, male gender, non-White race, bone marrow transplant, myeloablative conditioning, allogeneic HCT, and HCT in