

Taylor et al., Supplementary Materials

Supplementary Tables

Supplementary Table 1. Year of diagnosis of included patients

Year of Diagnosis	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2000	1	1.69	1	1.69
2002	2	3.39	3	5.08
2003	1	1.69	4	6.78
2005	2	3.39	6	10.17
2006	1	1.69	7	11.86
2007	1	1.69	8	13.56
2008	2	3.39	10	16.95
2009	5	8.47	15	25.42
2010	7	11.86	22	37.29
2011	8	13.56	30	50.85
2012	10	16.95	40	67.80
2013	4	6.78	44	74.58
2014	6	10.17	50	84.75
2015	7	11.86	57	96.61
2016	2	3.39	59	100.00

**Supplementary Table 2. Abnormal karyotypes observed**

Karyotype
44,XY, del(7q23) [9]/ 46,XY [11]
42,XX, -3,-7,-7,-9,-10,add(12)(p11.2),-13,-15,add(16)(q23),-21, +4mar [2]/ 46,XX [18]
45,X, -Y [13]/ 46,XY [7]
46,XY, +1, der(1;6)(q10;q10), t(11;16)(q13;p13)/ 46, idem, add(14)(p11.2)
45,XY, -1,del(5)(q31q35),-7, del(10)(q24),der(12)t(1;12)(q12;q21), +mar[cp3]/46,XY [17].nuc ish(EGR1x1,D5S723/D5S721x2) [16/100]
45,XY, i(7)(q10),del(12)(p12),-15 [7]/ 46,XY [13]
47,XY, del(9), (q13q22), +16 [13]/ 46,XY [7]
49,XY, +1,+12,+21 [3]/ 46,XY [17]
46~47,XY, -4, der(7), t(7;12),(p22;q12), -9, -12, -13, +16, add(17)(q24), +20, -21, +1~3mar [23/25]
46,XY, del(9)(q21) in 8/11 metaphases
43-44,XY, del(5)(q13q33),inv(6)(p11q23),-9,add(11)((p15),-12, der(21)(t(12;21)(q13;p11.1),-22,+mar[cp7]/ 45-46,XY, del(5)(q13q33),inv(6)(p11q23),add(8)(q24),-12, der(13)(t(12;13)(q24.1;q34),der(17;21)(q10;q10),del(22)(q11.2), +2-3 mar[cp10].ish 8q24(5'MYCx2,3'MYCx1)/ 46,XY [3]
42,XX, -3,-7,-7,-9,-10,add(12)(p11.2),-13,-15,add(16)(q23),-21,+4mar [2]/ 46,XX [18]
6 abnormal metaphases involving chromosome 1, 3p, 4q, 9q. Loss of chromosome 5, 6, 13, and 2-3 marker chromosomes were seen.

**Supplementary Table 3. Flow/IHC markers by organ involvement at diagnosis**

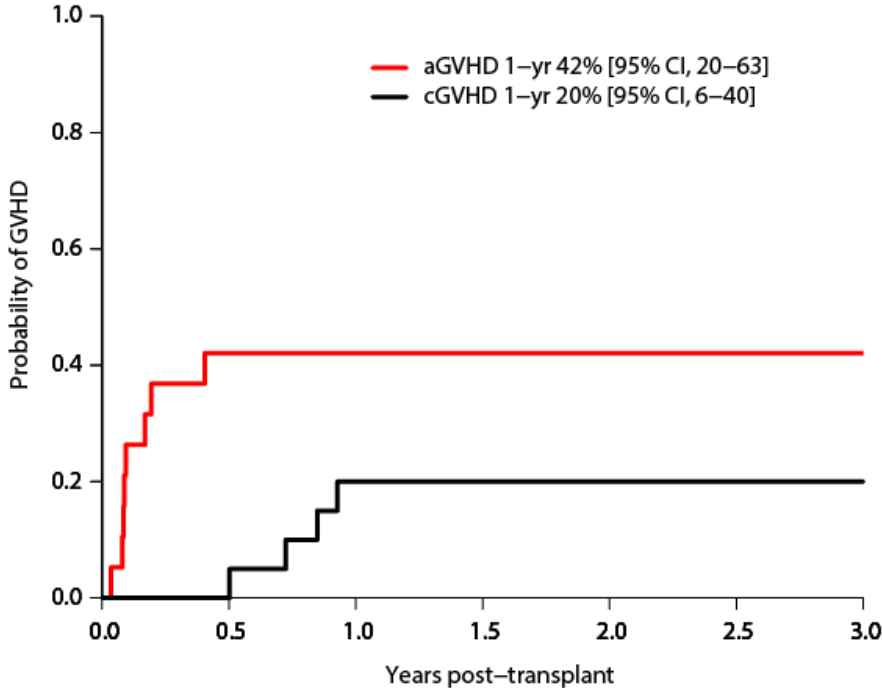
		Total	Skin Only	Systemic Only w/o Skin	Skin and Systemic	Incomplete Staging
N		59	11	10	28	10
CD123	positive	46 (78)	7 (64)	10 (100)	21 (75)	8 (80)
	negative	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	unknown	13 (22)	4 (36)	0 (0)	7 (25)	2 (20)
CD56	positive	57 (97)	11 (100)	9 (90)	27 (96)	10 (100)
	negative	2 (3)	0 (0)	1 (10)	1 (4)	0 (0)
	unknown	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CD4	positive	56 (95)	10 (91)	10 (100)	26 (93)	10 (100)
	negative	3 (5)	1 (9)	0 (0)	2 (7)	0 (0)
	unknown	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
TCL1	positive	10 (17)	4 (36)	2 (20)	4 (14)	0 (0)
	negative	11 (19)	0 (0)	2 (20)	7 (25)	2 (20)
	unknown	38 (64)	7 (64)	6 (60)	17 (61)	8 (80)
TdT	positive	20 (57)	6 (55)	3 (30)	9 (32)	2 (20)
	negative	14 (40)	2 (18)	4 (40)	4 (14)	4 (40)
	unknown	25 (42)	3 (27)	3 (30)	15 (54)	4 (40)
CD7	positive	19 (63)	2 (18)	6 (60)	10 (36)	1 (10)
	negative	11 (37)	1 (9)	4 (40)	3 (11)	3 (30)
	unknown	29 (49)	8 (73)	0 (0)	15 (54)	6 (60)
CD3	positive	10 (17)	2 (18)	2 (20)	6 (21)	0 (0)
	negative	45 (76)	8 (73)	8 (80)	20 (71)	9 (90)
	unknown	4 (7)	1 (9)	0 (0)	2 (7)	1 (10)

**Supplementary Table 4. List of first-line therapies**

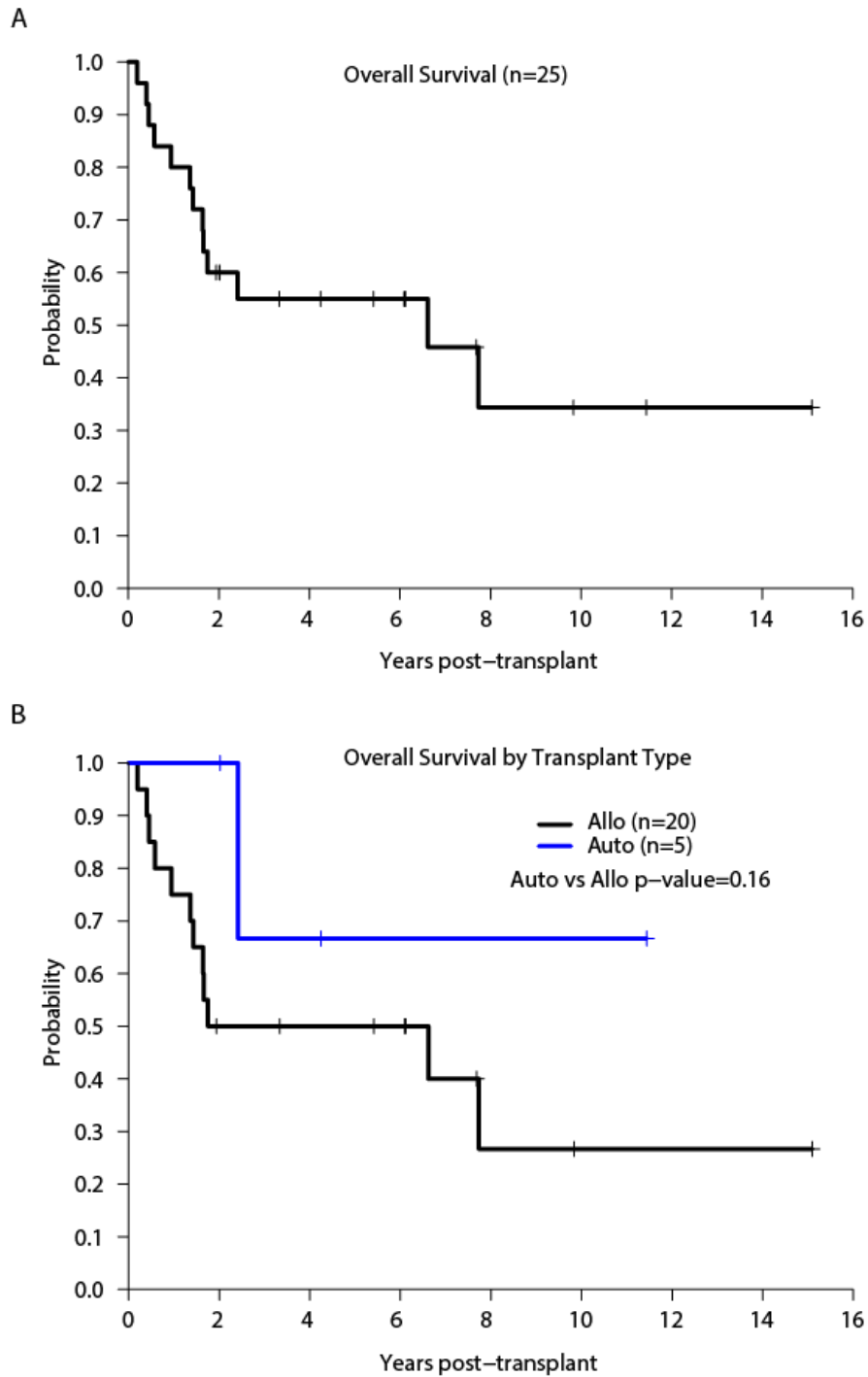
<b>Treatment</b>	<b>Intensity</b>	<b>Frequency</b>	<b>Percent</b>
6-MP then CHOP	Moderate	1	2.27
7+3	Intensive	4	9.10
AG-221 (Enasidenib)	Non-intensive	1	2.27
CALGB 9111	Intensive	4	9.10
CHOP	Moderate	1	2.27
CHOEP	Moderate	1	2.27
Campath (alemtuzumab)	Non-intensive	1	2.27
Decitabine	Non-intensive	1	2.27
Doxorubicin/Gemcitabine/Vinorelbine	Moderate	1	2.27
EPOCH	Intensive	2	4.55
Gemcitabine/Vinorelbine	Moderate	1	2.27
HIDAC/Mitoxantrone/methotrexate	Intensive	2	4.55
HyperCVAD	Intensive	7	15.91
ICE	Moderate	5	11.36
IVAC	Intensive	1	2.27
Modified hyperCVAD	Intensive	1	2.27
NY II Peds ALL Regimen	Intensive	1	2.27
Pralatrexate	Non-intensive	3	6.82
Prednisone/Hydroxyurea	Non-intensive	1	2.27
RCHOP	Moderate	1	2.27
SMILE	Intensive	1	2.27
SWOG 1203	Intensive	1	2.27
Vincristine/Prednisone	Non-intensive	1	2.27
XRT	Non-intensive	1	2.27

6-MP= 6-mercaptopurine; CHOP = cyclophosphamide, doxorubicin, vincristine, prednisolone; 7+3 = cytarabine, daunorubicin (or idarubicin); CALGB 9111 = Induction cyclophosphamide, daunorubicin, vincristine, prednisolone, asparaginase and filgrastim; CHOEP = cyclophosphamide, doxorubicin, vincristine, etoposide, prednisolone; EPOCH = dose-adjusted etoposide, cyclophosphamide, doxorubicin, vincristine, prednisolone; HIDAC = high dose cytarabine; hyperCVAD = cyclophosphamide, doxorubicin, vincristine, dexamethasone, cytarabine, methotrexate; ICE = ifosfamide, carboplatin, etoposide; IVAC = ifosfamide, etoposide, cytarabine, methotrexate; NY II Peds ALL regimen = pediatric-inspired ALL regimen; RCHOP = rituximab, cyclophosphamide, doxorubicin, vincristine, prednisolone; SMILE = dexamethasone, methotrexate, ifosfamide, asparaginase, etoposide; SWOG 1203 = 7+3 with or without vorinostat; XRT = radiation therapy.

**Supplementary Figures**



**Supplementary Figure 1. GVHD after hematopoietic stem cell transplant for BPDCN.** Cumulative Incidence of acute and chronic GVHD post-transplant with death as a competing risk for the 20 patients who received an allogeneic transplant.



**Supplementary Figure 2. Overall survival after hematopoietic stem cell transplant for BPDCN. (A) Overall survival from time of transplant. (B) Overall survival from time of transplant by type of transplant, autologous versus allogeneic.**