LETTER TO THE EDITOR

A phase II study of interrupted and continuous dose lenalidomide in relapsed/refractory Hodgkin lymphoma

Todd A. Fehniger,[1] Marcus P. Watkins,[1] Nkiruka Ezenwajiaku,[1] Fei Wan,[2] David D. Hurd,[3] Amanda F. Cashen,[1] Kristie A. Blum,[4] Andre Goy,[5] Timothy S. Fenske,[6] Nina D. Wagner-Johnston,[1] Kenneth Carson,[1] Marilyn J. Siegel,[7] David Russler-Germain,[1] Stephanie E. Schneider,[1] Neha Mehta-Shah,[1] Brad Kahl[1] and Nancy L. Bartlett[1]

[1]Washington University School of Medicine, Division of Oncology, St. Louis, MO; [2]Washington University School of Medicine, Division of Biostatistics, St. Louis, MO; [3]Wake Forest University School of Medicine, Section of Hematology and Oncology, Winston-Salem, NC; [4]Emory University School of Medicine, Department of Hematology and Medical Oncology, Atlanta, GA; [5]Hackensack University Medical Center, Division of Lymphoma, Hackensack, NJ; [6]Medical College of Wisconsin, Hematology and Oncology Department, Milwaukee, WI and [7]Washington University, Mallinckrodt Institute of Radiology, Alvin J. Siteman Cancer Center, St. Louis, MO, USA

Correspondence:
T.A. FEHNIGER - tfehnige@wustl.edu
N.L. BARTLETT - nbarlet@wustl.edu

https://doi.org/10.3324/haematol.2022.282246

Supplementary Table 1. Patient Characteristics

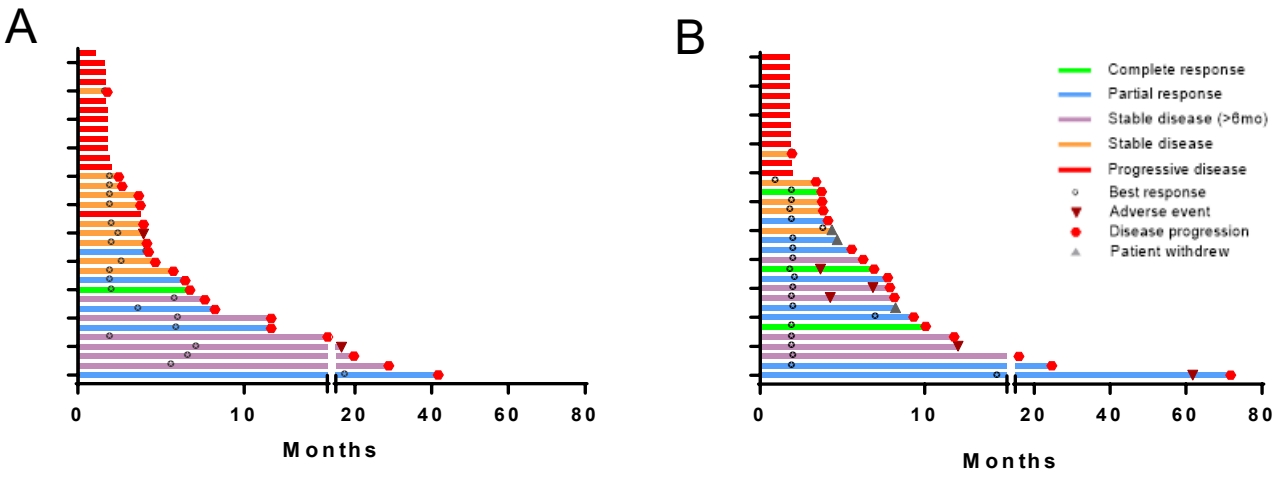
	Interrupted	Continuous	Combined
Patients (n)	38	42	80
Sex, n (%)			
Male	15 (39)	24 (57)	39 (49)
Female	23 (61)	18 (43)	41 (51)
Age, y			
Median	34	38	36
Range	25-62	20-83	20-83
Race, n (%)			
White	34 (89)	36 (86)	70 (88)
Black	2 (5)	5 (12)	7 (9)
Hispanic	1 (3)	1 (2)	2 (3)
Asian	1(3)	0 (0)	1 (1)
Histology, n (%)			
Nodular sclerosis	30 (79)	28 (67)	58 (73)
Mixed cellularity	4 (11)	4 (10)	8 (10)
Lymphocyte rich	0 (0)	2 (5)	2 (3)
Classical, NOS	4 (11)	8 (19)	12 (15)
Disease status, n (%)			
Relapsed	17 (45)	27 (69)	44 (57)
Refractory	21 (55)	12 (31)	33 (43)
B symptoms, n (%)			
Yes	13 (34)	11 (28)	24 (31)
No	25 (66)	29 (73)	54 (69)
Performance status, n (%)			
0	22 (58)	21 (50)	43 (54)
1	13 (34)	19 (45)	32 (40)
2	3 (8)	2 (5)	5 (6)
Prior chemotherapy regimens, n			
Median	4	3	3
Range	2-9	1-15	1-15
Prior radiation therapy, n (%)			
Yes	24 (39)	27 (64)	51 (49)
No	37 (61)	15 (36)	52 (51)
Prior stem cell transplantation, n (%)			
Yes	33 (87)	31 (74)	64 (80)
No	5 (13)	11 (26)	16 (20)
Prior stem cell transplantation, n (%)			
Autologous only	29 (88)	26 (68)	55 (83)
Syngeneic	1 (3)	0 (0)	1 (2)
Allogeneic only	0 (0)	2 (6)	2 (3)
Autologous and allogeneic	3 (9)	5 (12)	8 (12)
Prior treatment with BV n (%)			
	6 (16)	5 (12)	11 (14)
Time from last therapy, mo			
Median	3.5	3.75	3.75
Range	1-66	1-126	1-126

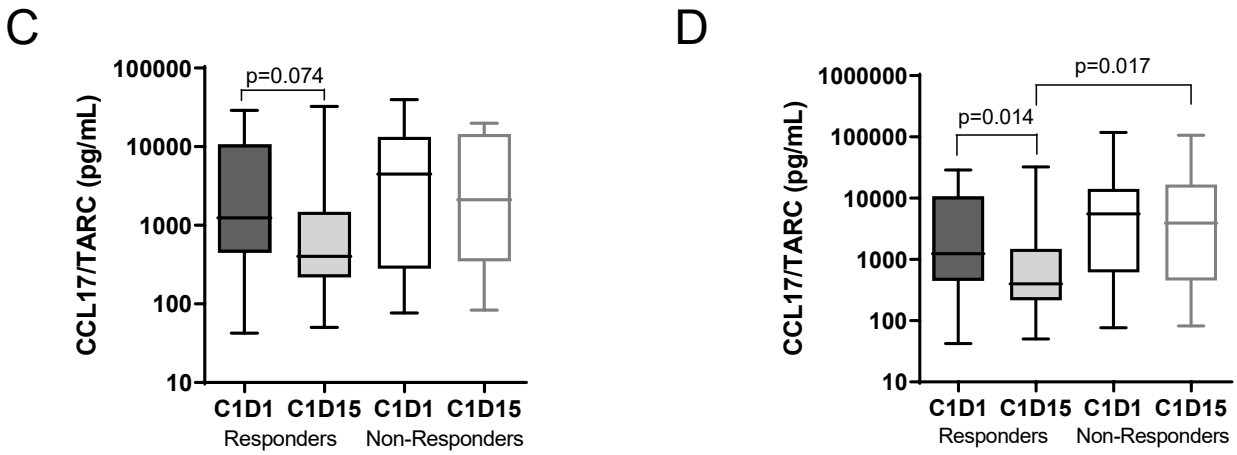
Supplementary Table 2. Characteristics of patients with CR, PR, or SD > 6 months

Age, y	Sex	Response	Cycle to best response, n	Time to treatment failure, mo	Cycles of lenalidomide, n	Rel. or Ref.	Prior therapies ,n	Prior XRT	Prior transplantation	Prior BV	Time to enrollment, mo*	Histology
66	M	CR	2	10.0	9	Ref	6	yes	none	yes	1	NS
79	M	CR	2	AE at 8.5	4	Rel	1	no	none	no	7	NS
42	M	CR	2	3.7	10	Rel	2	yes	Auto	no	10	NS
47	M	PR	14	AE at 73.0	84	Rel	2	no	Auto	no	27	NS
28	F	PR	2	24.4	24	Rel	2	yes	Auto	no	54	NS
37	F	PR	7	9.3	9	Unk	3	yes	Auto	yes	75	NS
56	M	PR	2	8.2	8	Rel	2	no	Auto	no	45	NOS
28	F	PR	2	7.7	8	Rel	2	yes	Auto	no	73	NS
68	F	PR	2	5.5	5	Rel	3	yes	none	no	1	NS
58	F	PR	4	Pt withdrew, 4.6	5	Ref	3	yes	none	no	3	NS
31	M	PR	2	4.1	4	Ref	15	yes	Auto + Allo	no	2	NS
50	M	SD >6mo	2	AE at 18.5	12	Rel	3	yes	Auto	no	126	NOS
49	M	SD >6mo	2	15.7	15	Unk	4	yes	Auto + Allo	no	15	NOS
66	M	SD >6mo	2	11.7	12	Rel	2	no	Auto	no	8	LR
74	M	SD >6mo	2	6.2	6	Rel	2	no	Auto	no	24	MC

Ref indicates refractory disease; rel, relapsed disease; Unk, unknown; Auto, autologous SCT; Allo, allogeneic SCT; NS, nodular sclerosis; NOS, not otherwise specified; LR, lymphocytic rich; MC, mixed cellularity; CR, complete response; PR, partial response; SD, stable disease

***Time to enrollment indicates the length of time between the last prior therapy and enrollment in the current study.**


A
0
10
20
40
60
80
Months
B
Complete response
Partial response
Stable disease (>8mo)
Stable disease
Progressive disease
Best response
Adverse event
Disease progression
Patient withdrew
0
10
20
40
60
80
Months


C
CCL17/TARC (pg/mL)
100000
10000
1000
100
10
p=0.074
C1D1
C1D15
C1D1
C1D15
Responders
Non-Responders
D
CCL17/TARC (pg/mL)
1000000
100000
10000
1000
100
10
p=0.014
p=0.017
C1D1
C1D15
C1D1
C1D15
Responders
Non-Responders

Supplementary Figure 1.

Swimmer plot representing the survival, progression-free survival, and response kinetics of patients on continuous dosing (A) and interrupted dosing (B). The time of best response, adverse event, disease progression and treatment response are indicated for each evaluable patient. Two patients on the continuous dose withdrew and are indicated. (C) Serum CCL17/TARC changes seen in the continuous cohort (C) and (D) in the entire (continuous and interrupted) cohort. Serum CCL17/TARC changes from pre-therapy cycle 1 day 1 (C1D1) and cycle 1 day 15 (C1D15) for responders (CR/PR/SD >6months) and non-responders (SD 6 months, PD) are shown. Box-whisker plots depict pre-therapy and C1D15 plasma CCL17/TARC concentrations. P values were determined using the Wilcoxon signed rank test. There was no significant difference between C1D1 and C1D15 in non-responders.