



**Supplementary Figure 1 Hematologic recovery.** A and B: Difference in neutrophil recovery between group A and B in the first (A) and second (B) autologous stem cell transplantation; C and D: Difference in platelet recovery between group A and B in the first (C) and second (D) autologous stem cell transplantation. <sup>a</sup> $P < 0.05$ , <sup>b</sup> $P < 0.001$ .

**Supplementary Table 1 High-dose chemotherapy regimens**

Regimen	Drug	Dose	Schedule	Total dose (mg/m <sup>2</sup> )
Group A				
First HDCT regimens				
	Etoposide	160 mg/m <sup>2</sup> /day	Day-6, -5, -4, -3	640
	Carboplatin	300 mg/m <sup>2</sup> /day	Day-6, -5, -4, -3	1200
	Cyclophosphamide	60 mg/kg/day	Day-4, -3	120 <sup>1</sup>
Second HDCT regimens				
	Irinotecan	50 mg/m <sup>2</sup> /day	Day-7, -6, -5	150
	Temozolomide	150 mg/m <sup>2</sup> /day	Day-7, -6, -5	450
	Carboplatin	300 mg/m <sup>2</sup> /day	Day-7, -6	600
	Etoposide	160 mg/m <sup>2</sup> /day	Day-5, -4, -3	480
	Cyclophosphamide	60 mg/kg	Day-4, -3	120 <sup>1</sup>
Group B				
First HDCT regimens				
	Etoposide	500 mg/m <sup>2</sup> /day	Day-8, -7, -6	1500
	Carboplatin	600 mg/m <sup>2</sup> /day	Day-8, -7, -6	1800
	Cyclophosphamide	1800 mg/m <sup>2</sup> /day	Day-5, -4	3600
Second HDCT regimens				
	Busulfan	3.2–4.8 mg/kg/day <sup>2</sup>	Day-8, -7, 6, -5	12.8–16 <sup>1</sup>
	Melphalan	140 mg/m <sup>2</sup> /day	Day-3	140

<sup>1</sup>mg/kg.

<sup>2</sup>Busulfan dose; < 9 kg: 4 mg/kg.d; 9–16 kg: 4.8 mg/kg.d; 16–23 kg: 4.4 mg/kg.d; 23–34 kg: 3.8mg/kg.d; > 34 kg: 3.2 mg/kg.d.

HDCT: High-dose chemotherapy.