# Effectiveness of subcutaneous low-dose alemtuzumab and rituximab combination therapy for steroid-resistant chronic graft-versus-host disease

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# **Online Supplementary Appendix**

## Stem cell transplantation

Allogeneic stem cell transplantation was performed at the Hematology Department at the Internal Medicine Division of the Dr. José E. González University Hospital of the School of Medicine of the Universidad Autónoma de Nuevo León in Monterrey, Mexico. All of the patients received a low-intensity conditioning regimen with oral busulfan at 4 mg/kg delivered over two days, i.v. cyclophosphamide at 350 mg/m<sup>2</sup>/day/3 days, and i.v. fludarabine at 30 mg/m<sup>2</sup>/day/3 days. In all cases, the donor was an HLA-identical (6/6) sibling. All the patients received G-CSF mobilized peripheral stem cells. Standard GvHD prophylaxis with oral cyclosporine A (CsA) 4 mg/kg was started on Day -1, and i.v. methotrexate (5 mg/m²) was administered on Days +1, +3, +5 and +11. The CsA dose was adjusted to obtain a serum level between 150 and 250 ng/mL. When acute or chronic graftversus-host disease (GvHD) data were present, the CsA dose was continued, and 1 mg/kg/day prednisone was added to the treatment. Patients with steroid refractory cGvHD were invited to participate in this alemtuzumab-rituximab trial. Percentages of donor-host chimerism were evaluated in all recipients. In cases of sex mismatch, fluorescent in situ hybridization was performed to show the X and Y chromosomes; when there was no mismatch, multi-lineage polymorphic markers (STRs) were analyzed.

## Online Supplementary Table S1.

The therapeutic response was evaluated according to "Response Criteria Working Group Report"

#### Skin

- A) Erythematous rash of any sort (% body surface area)
- B) Movable sclerosis (0-100% for each feature)
- C) Non-movable sclerosis or subcutaneous sclerosis/fasciitis
- D) Ulcers largest dimension (cm)
- E) Pruritus or itching (scale 0-10)

#### Eyes:

- Å) Main ocular symptom at the time of the visit (scale 0-10)
- B) Bilateral Schirmer's tear test score (mm wetting of the paper after 5 min)

#### Mouth:

- A) Erythema (score 0-3)
- B) Lichen-type hyperkeratosis
- C) Ulcerations

## Gastrointestinal (GI):

- A) Upper GI symptoms (score 0-3)
- B) Esophageal symptoms (score 0-3)
- C) Diarrhea (score 0-3)

#### Liver

- A) Total serum bilirubin (mg/dL)
- B) Alanine aminotransferase (U/L)
- C) Alkaline phosphatase (U/L)

# Lung: (Bronchiolitis obliterans syndrome)

- A) Forced expiratory volume in the first second (FEV1)
- B) Single breath diffusion lung capacity for carbon monoxide (DLCO)

### Chronic GvHD symptom scale:

A) Global activity rating severity of chronic GvHD symptoms (0-10)

Karnofsky performance status scale (0-100)

### References

1. Pavletic S, Martin P, Lee S, Mitchell S, Jacobsohn D, Cowen E, et al. Measuring therapeutic response in chronic graft-versus-host disease: National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-versus-Host Disease: IV. Response Criteria Working Group report. Biol Blood Marrow Transplant. 2006;12(3):252-66.

# Online Supplementary Table S2. Status of cGvHD before treatment.

			Skin			Ey	/es		Mouth				Gl			Liver		Lu	ing	Symptoms	Karnofsky
<b>Patient</b>	A	В	C	D	E	A	В	A	В	C	D	A	В	C	A	В	C	A	В		
1	40%				6			3							1.7	107	116			5	90
2		15%			7				;	3										8	60
3						5	1		;	3					1.8	225	269			6	90
4		20%			2	8		2						2	0.9	122	103			7	90
5	60%				8				;	3					0.8	631	150			9	70
6						6	3		(	6					0.6	53	177			7	90
7						10	0		;	3					0.5	67	140			9	80
8	40%	10%	10%		9	5		2												9	70
9	20%	5%			2				(	6										8	90
10	15%					9			;	3					1.2	137	906	42%	61%	10	50
11		10%	10%		9															10	80
12						4			(	6					4.8	426	445			6	80
13						7	11		;	3					1.3	267	217			4	90
14						10	0	2										37%	72%	10	70
15	20%				2	6			;	3										8	90

## Online Supplementary Table S3. Maximal response achieved after treatment.

	Skin				E	yes	Mouth			GI					Liver			ng	Symptoms	Karnofsky	
<b>Patient</b>	A	В	C	D	Ε	A	В	A	В	C	D	A	В	C	A	В	C	A	В		·
1	10%				0			2							0.4	58	66			0	90
2		15%			2			1		0										4	80
3						0	14			0					1.2	20	145			0	100
4		10%			0	0		1						0	0.5	67	91			0	90
5	0%				0					0					1.1	49	118			0	100
6						4	3			3					0.7	22	149			3	90
7						0	16			0					0.4	24	122			0	100
8	5%	10%	0%		0	3		0												3	90
9	0%	0%			0					0										0	100
10	0%					3				0					1.0	18	708	98%	95%	5	80
11		0%	0%		0															0	100
12						0				0					1.3	44	119			0	100
13						5	14	1		0					1.0	86	181			2	90
14						2	13	0										43%	67%	5 2	90
15	0%				0	0				0										0	100