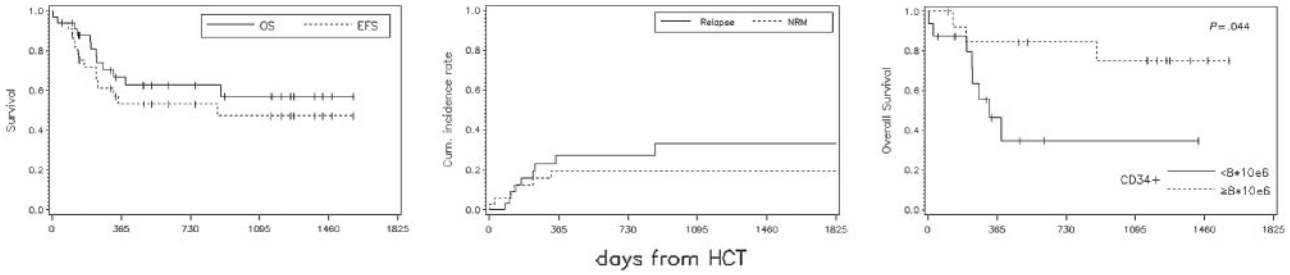

Figure 1.

The incidence of acute and chronic GvHD was comparable with that reported in younger patients. On median day +170, 9 patients relapsed (2-year cumulative relapse risk, 27.3% [95% CI, 15%-49.7%]). Of 7 relapsed patients, 3 responded to donor lymphocyte infusions (DLIs) and 2 patients overall were successfully salvaged (1 with DLI, 1 with second HCT). After a median follow-up of 913 days (range, 55-1591 days), 22 patients (65%) are alive with all but 1 in complete remission (CR). Most of the survivors report feeling well (median Karnofsky performance score [KPS], 100%; 70-100), with only 2 patients requiring chronic immunosuppression. The actuarial 2-year overall survival (OS) and event-free survival (EFS) probability were 62.7% (95% CI, 44.9%-80.4%) and 53.1% (95% CI, 34.8%-71.4%), respectively (Figure 1). Interestingly, higher numbers of $CD34^+$ cells in the PB graft were associated with improved outcome ($P = .044$). This correlation could not be explained by a higher incidence of chronic GvHD with increasing numbers of $CD34^+$ PB cells, as suggested by others.[7] Since age affects $CD34^+$ cell yield during apheresis, it seems reasonable to consider lower age as a selection criterion when choosing a donor.

Allogeneic PB-HCT from unrelated donors using the FBM/ATG protocol is an effective treatment for patients 60 years or older with high-risk myeloid malignancies. The sustained remissions observed in 7 of 11 previously untreated sAML (AML secondary to MDS) or MDS patients suggest that at least for candidates with a slow increase of blasts over time, transplantation may be used as a front-line therapy.

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To the editor:

No cardiac toxicity associated with alemtuzumab therapy for mycosis fungoides/Sézary syndrome

We read with interest the article from Lenihan et al.[1] In this report, 4 of 8 patients with mycosis fungoides/Sézary syndrome (MF/SS) were reported to have developed either congestive heart failure or cardiac arrhythmia during alemtuzumab (MabCampath, Campath; Schering, Berlin, Germany) treatment. None had a history of cardiac problems, and cardiotoxicity during therapy was considerably improved after discontinuation, suggesting a link with alemtuzumab. They suggest that the cardiotoxicity might be explained by cytokine release or direct effects on the heart.

We therefore rechecked the individual files of 30 patients with advanced MF/SS who had participated in European trials of alemtuzumab. A complete physical examination and electrocardiogram (ECG) were performed at baseline. Physical re-examination was performed regularly during and after treatment. ECG was repeated if there were clinical signs of cardiac disease. Based on these analyses, we cannot confirm the findings of Lenihan's study.[1] In a phase 2 trial of 22 patients with MF/SS,[2] there was no clinical cardiac toxicity during or after alemtuzumab treatment. Similar to the study by Lenihan,[1] alemtuzumab was administered intravenously on 3 consecutive days at doses (3 mg, 10 mg, and 30 mg), followed by 30 mg 3 times weekly for up to 12 weeks. The overall response rate was 55%; 32% complete remissions and 23% partial remissions. Median cumulative alemtuzumab dose was 913 mg (range 253 mg-1063 mg) compared with 30 mg to 553 mg in Lenihan's study. There were 7 of 22 patients who were considered to have pre-existing cardiac risk (previous myocardial infarction, n = 1; hypertension, n = 4; cardiomyopathy, n = 1; angina pectoris, n = 1; congestive heart failure/mitral insufficiency, n = 1). There were 5 patients who had received prior doxorubicin; the median cumulative dose was 408 mg (range, 255

Table 1. Overview of patients with MF/SS treated with alemtuzumab

Patient no.	Age/sex	Previous treatment	Best response	Cumulative alemtuzumab dose (mg)	Previous ANTH	Cardiac risks before alemtuzumab therapy	Cardiac toxicity during or after* alemtuzumab therapy
1	73/M	Steroids, interferon, Tigason	CR	1016	No	MI 1998, Asthma	None
2	73/M	Methotrexate, interferon, photophoresis, chlorambucil, steroids, fludarabine ×5	PR	1033	No	Asthma, chronic bronchitis	None
3	77/F	Methotrexate + 5FU ×9, PUVA	CR	913	No	HTN, CVL 1996	None
4	60/F	PUVA, CdA ×4, CHOP ×8, radiotherapy	PD	563	Yes	None	None
5	52/M	Chlorambucil + steroids, fludarabine + cyclophosphamide + steroids	SD	733	No	None	None
6	61/M	PUVA-photophoresis, α-IFN, methotrexate	CR	1023	No	None	None
7	49/F	Local skin treatment	PR	968	No	None	None
8	65/F	Methotrexate, steroids	CR	334	No	Cardiomyopathy	None
9	72/F	PUVA, radiotherapy	PR	1063	No	None	None
10	55/M	PUVA, steroids	PR	1033	No	None	None
11	63/M	CHOP ×5, radiotherapy	PD	373	Yes	None	None
12	77/F	Radiotherapy, vitamin A, PUVA, α-IFN, methotrexate	SD	313	No	Angina pectoris	None
13	62/F	PUVA, photophoresis, steroids	CR	876	No	None	None
14	63/F	PUVA, α-IFN, chlorambucil + steroids	CR	1035	No	None	None
15	60/F	Chlorambucil + steroids, CHOP ×4, photophoresis	PD	756	Yes	CHF, nonsymptomatic mitral insuffiency	None
16	56/M	PUVA, radiotherapy	CR	1033	No	None	None
17	71/F	PUVA, photophoresis	PR	1033	No	Unknown	None†
18	57/M	PUVA, steroids, methotrexate	PD	1033	No	None	None†
19	56/F	Radiotherapy, α-IFN, chlorambucil + steroids, methotrexate	PD	253	No	None	None
20	49/M	CHOP, PUVA, radiotherapy, mustine	PD	613	Yes	None	None
21	38/M	PUVA, α-IFN	SD	1009	No	None	None†
22	57/F	CHOP ×3, methotrexate	PD	805	Yes	HTN	None†
23	64/F	Steroids, CsA	CR	750	No	None	None
24	54/F	Steroids, azathioprine, methotrexate, mycophenolate	CR	210	No	HTN	None
25	57/F	Steroids, PUVA, extracorporeal phototherapy, chlorambucil	CR	720	No	None	None
26	70/M	Steroids, PUVA	PR‡	360	No	HTN	None
27	86/M	Steroids, PUVA	PR‡	300	No	None	None
28	82/M	PUVA, chlorambucil, CsA, steroids	NR	100	No	None	None
29	74/F	PUVA, DCF, steroids	NR	100	No	None	None
30	60/F	PUVA, methotrexate, etoposide, CsA, DCF, steroids	PR	450	No	None	None

M indicates male; F, female; PUVA, psoralen-ultraviolet light; 5FU, 5-fluorouracil; IFN, interferon; CHOP, cyclophosphamide, doxorubicin, vincristine, prednisone; CdA, 2-chlorodeoxyadenosine; CsA, cyclosporine A; DCF, deoxycoformycin; SD, stable disease; PR, partial response; CR, complete response; PD, progressive disease; CVL, cerebral vascular lesion; HTN, hypertension; CHF, congestive heart failure; ANTH, anthracyclines; MI, myocardial infarction.

*Within 6 months of therapy.

†No event during alemtuzumab therapy; however, event after end of therapy is unknown.

‡Resolution of symptoms, but persistent erythroderma and skin infiltrates.

mg-680 mg). No clinical cardiotoxicity occurred during or after alemtuzumab therapy in these patients. In contrast, all 3 patients in Lenihan's study who developed heart failure had received prior doxorubicin.

A retrospective analysis of 8 individual MF/SS patient files from similar studies within the United Kingdom confirmed our findings. All except 1 patient had received prior chemotherapy and/or radiotherapy. Collectively, our data on 30 patients (Table 1) receiving alemtuzumab for advanced MF/SS indicate that clinical cardiotoxicity appears to be rare.

Furthermore, alemtuzumab therapy of T-cell prolymphocytic leukemia and peripheral T-cell lymphoma has not been associated with cardiotoxicities and, therefore, it seems unlikely that release of T-cell cytokines is a cause of significant cardiac toxicity.[2-4] It remains unclear why the patients with MF/SS in Lenihan's study[1] developed cardiac complications.

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