**Additional file**

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**Table S1: Outcomes of patients with AITL who underwent allogeneic HCT**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Authors****(year)** | **Study type** | **N** | **Preparative regimens** | **aGVHD** **(2-4)** | **cGVHD(1 yr)** | **NRM** | **Prog/****Relapse** | **PFS**  | **OS**  |
| Le Gouill(2008)  | Retrosp study  | 11 | MAC=55%NMA=45%  | - | - | 1 yr: 9% | 5 yr: 9% | 5 yr: 80%1  | 5 yr: 80% |
| Kyriakou C(2009) | Retrosp study | 45 | MAC=56%RIC=44% | 29% | 52% | 1 yr: 25%3 yr: 27% | 1 yr: 13% 3 yr: 20%  | 1 yr: 62%3 yr: 53% | 1 yr: 66%3 yr: 64% |
| Dodero (2012) | Retrosp study  | 9 | MAC=64%2RIC=36% | 21%2 | 17%2 | 5 yr: 12%2 | 5 yr: 49%2 | 5 yr: 44%  | 5 yr: 66% |
| Smith SM(2013) | Retrosp study  | 12 | - | 8% | 27% | 1 yr: 8%3 yr: 8%  | 1 yr: 25%3 yr: 25% | 1 yr: 67%3 yr: 67%  | 1 yr: 92%3 yr: 83% |

 Abbreviations: Retrosp=retrospective; aGVHD=acute graft versus host disease; cGVHD= chronic graft versus host disease;

 NRM=non-relapse mortality; Prog=progression; PFS=progression-free survival; OS= overall survival; MAC=myeloablative

 conditioning; RIC=reduced-intensity conditioning.

1Indicates Event-free survival
2Depicts the outcome of the entire PTCL cohort (n=52)

**Table S2: Variables tested in Cox proportional hazards regression models**

**Patient-related:**

* Age at transplant, continuous and by age groups (decades)
* Patient sex: male vs. female
* Race: Caucasians vs. othersvs missing
* Karnofsky performance status at transplant: 90-100% vs. <90% vs. missing
* Sorror Co-morbidity index : 0 vs. 1-2 vs. 3 or more

 **Disease-related:**

* Time from diagnosis to HCT: ≥1 year vs. <1 year
* Chemosensitivity at allo-HCT: CR vs. PR vs. chemoresistant vs. untreated/missing
* Prior autologous transplant: No vs. Yes

**Transplant-related:**

* Year of transplant: 2000-2006 vs 2007-2011 vs 2012-2016
* ATG/alemtuzumab use in conditioning: No vs. Yes vs. missing
* Donor type: HLA-identical sibling vs. URD
* Conditioning intensity: Myeloablative (MAC) vs. reduced-intensity conditioning (RIC)
* GVHD prophylaxis: calcineurin inhibitors + MTX ± others (excluding MMF) vs. calcineurin inhibitors + MMF ± others vs. calcineurin inhibitors + others (excluding MTX/MMF) vs. others vs. missing
* Donor/Recipient CMV status : -/+ vs. others
* cGVHD (as a time-dependent covariate in model of progression/relapse)

**Table S3: Causes of Death**

|  |  |
| --- | --- |
| **Cause of death** | **N (%)** |
| Number of deaths | 112  |
| Organ failure  | 22 (20) |
| Primary disease | 21 (19) |
| Graft versus Host disease | 19 (17) |
| Infection | 17 (15) |
| Second malignancy | 5 (4) |
| Hemorrhage | 4 (3) |
| Acute Respiratory Distress Syndrome | 1 (<1) |
| Other causes1 | 2 (2) |
| Unknown | 21 (19) |

1Other cause: 1 TENS; 1 leukoencephalopathy.

**Table S4: Conditioning Intensity**

|  |  |
| --- | --- |
| **Conditioning regimen by intensity** | **N=249 (%)** |
| **Myeloablative** | **66 (27)** |
|  Cy/TBI ±others1 | 33 (13) |
|  Flu/Bu | 12 (5) |
|  Bu/Cy | 7 (3) |
|  Flu/Mel ± others2 | 6 (2) |
|  TBI ±other(s)3 | 5 (2) |
|  Other(s)4 | 2 (<1) |
|  Missing | 1 (<1) |
| **Non-myeloablative/RIC** | **183 (73)** |
|  Flu/Mel ± others5 | 63 (25) |
|  Flu/Bu | 39 (16) |
|  TBI/Flu | 22 (9) |
|  Cy/Flu | 12 (5) |
|  Cy/TBI/Flu ± others6 | 10 (4) |
|  BEAM like | 9 (4) |
|  TBI ± other(s)7 | 8 (3) |
|  Flu ± Other8 | 5 (2) |
|  TLI | 7 (3) |
|  Other(s)9 | 7 (3) |
|  Missing | 1 (<1) |

Abbreviations: Flu=fludarabine; Bu=busulfan; Cy=cyclophosphamide; Mel=melphalan; TBI=total body irradiation; BEAM=Carmustine, etoposide, cytarabine and melphalan; TLI=total lymphoid irradiation; RIC=reduced-intensity conditioning

**MAC:**
1Cy/TBI ± others: Cy/TBI alone=28; Cy/TBI/ATG=1; Cy/TBI/Etoposide=2; Cy/TBI/Flu/TT=2
2lu/Mel ± others: Flu/Mel alone=2; Flu/Mel/ATG/Nitro=1; Flu/Mel/ATG/TT=1; Flu/Mel/Mab=1; Flu/Mel/Nitro=1
3TBI ± others: TBI alone=4; TBI/Flu/TT=1
4Others: Bu alone=1; Mel/Etoposide=1

**NMA/RIC:**
5Flu/Mel ± others: Flu/Mel alone=46; Flu/Mel/ATG=9; Flu/Mel/ATG/Nitro=2; Flu/Mel/Mab=4; Flu/Mel/Nitro=1; Flu/Mel/This=1
6Cy/TBI/Flu ± others: Cy/TBI/Flu=6; Cy/TBI/Flu/TT=1; Cy/TBI/Flu/ATG=3
7TBI ± other(s): TBI alone=5; TBI/Pentostatin=3
8Flu ± Other: Flu alone=4; Flu/Bendamustine=1
9Other(s): Bu alone= 2; TBI/Mel=2; Cy/TBI/Etoposide=1; TBI/Etoposide=1; Cy/TBI=1

**Table S5: Details of GVHD prophylaxis regimens.**

|  |  |
| --- | --- |
| **Variable** | **N=249 (%)** |
| **CNI + MTX +/- others (except MMF)**  | 119 (48) |
| CNI + MTX  | 93 |
| CNI + MTX + Sirolimus | 20 |
| CNI + MTX + ATG | 2 |
| CNI + MTX + corticosteroids | 2 |
| CNI + MTX + ECP | 1 |
| CNI + MTX + monoclonal antibody | 1 |
| **CNI + MMF +/- others**  | 76 (31) |
| CNI + MMF | 60 |
| CNI + MMF + MTX | 8 |
| CNI + MMF + ATG | 4 |
| CNI + MMF + Sirolimus | 3 |
| CNI + MMF + monoclonal antibody | 1 |
| **CNI+- others (except MMF)** | 40 (16) |
| CNI | 19 |
| CNI + Sirolimus | 17 |
| CNI + monoclonal antibody | 3 |
| CNI + corticosteroids | 1 |
| **Others** | 10 (4) |
| MTX | 1 |
| MMF | 1 |
| MTX+MMF | 1 |
| Post-Cy | 3 |
| Ex-vivo T-cell depletion | 4 |
| Missing |  4 (2) |

Abbreviations: CNI=Calcineurin inhibitor; MTX=methotrexate; MMF=mycophenolate mofetil; ATG=anti-thymocyte globulin; ECP=extracorporeal photopheresis; Cy=cyclophosphamide

**Table S6: Univariate outcomes of AITL patients receiving alternative donor sources**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Haploidentical donor** **(N = 8)** | **Mismatch unrelated donor (N = 22)** | **Cord blood** **(N = 21)** |  |
| **Outcomes** | **N Eval** | **Prob (95% CI)** | **N Eval** | **Prob (95% CI)** | **N Eval** | **Prob (95% CI)** | **p-value** |
| **Chronic GVHD** | 7 |  | 21 |  | 19 |  | 0.03 |
|  1-year |  | 33 (5-72)% |  | 48 (27-69)% |  | 21 (6-42)% | 0.18 |
|  2-year |  | 33 (5-72)% |  | 65 (44-84)% |  | 28 (10-51)% | 0.04 |
| **NRM** | 8 |  | 22 |  | 21 |  | 0.14 |
|  1-year |  | 13 (0-42)% |  | 18 (5-37)% |  | 38 (19-59)% | 0.20 |
|  2-year |  | 13 (0-42)% |  | 18 (5-37)% |  | 38 (19-59)% | 0.20 |
|  3-year |  | 13 (0-42)% |  | 18 (5-37)% |  | 38 (19-59)% | 0.20 |
|  4-year |  | 13 (0-42)% |  | 18 (5-37)% |  | 38 (19-59)% | 0.20 |
| **Progression/relapse** | 8 |  | 22 |  | 21 |  | 0.29 |
|  1-year |  | 28 (3-63)% |  | 32 (14-52)% |  | 24 (9-44)% | 0.84 |
|  2-year |  | 28 (3-63)% |  | 37 (18-58)% |  | 24 (9-44)% | 0.64 |
|  3-year |  | 28 (3-63)% |  | 42 (22-63)% |  | 24 (9-44)% | 0.43 |
|  4-year |  | 28 (3-63)% |  | 42 (22-63)% |  | 24 (9-44)% | 0.43 |
| **PFS** | 8 |  | 22 |  | 21 |  | 0.33 |
|  1-year |  | 60 (25-90)% |  | 50 (30-70)% |  | 38 (19-59)% | 0.53 |
|  2-year |  | 60 (25-90)% |  | 45 (25-66)% |  | 38 (19-59)% | 0.58 |
|  3-year |  | 60 (25-90)% |  | 40 (21-61)% |  | 38 (19-59)% | 0.56 |
|  4-year |  | 60 (25-90)% |  | 40 (21-61)% |  | 38 (19-59)% | 0.56 |
| **Overall survival** | 8 |  | 22 |  | 21 |  | 0.55 |
|  1-year |  | 75 (42-97)% |  | 59 (38-78)% |  | 48 (27-69)% | 0.34 |
|  2-year |  | 56 (19-90)% |  | 59 (38-78)% |  | 48 (27-69)% | 0.74 |
|  3-year |  | 56 (19-90)% |  | 59 (38-78)% |  | 48 (27-69)% | 0.74 |
|  4-year |  | 56 (19-90)% |  | 48 (28-69)% |  | 48 (27-69)% | 0.93 |

Abbreviations: GVHD=graft-versus-host disease; Prob= probability; CI = confidence interval; N = number; NRM=non-relapse mortality; PFS=progression-free survival