sults There was no significant difference between the 3 groups in the occurrence of FN or documented infection. However, hyperglycemia was significantly associated with organ dysfunction and aGVHD. OS was better and TRM was less in group1 compared with group2 and group3. Conclusion Degrees of hyperglycemia during neutropenia was associated with an increased risk of organ dysfunction and aGVHD, which further led to higher TRM and lower OS. These results support the possibility that intensive glucose control reduces morbidity and mortality after HSCT.

<table>
<thead>
<tr>
<th>blood glucose level</th>
<th>normoglycemia (n=28)</th>
<th>mild hyperglycemia (n=49)</th>
<th>moderate and severe hyperglycemia (n=14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN</td>
<td>25 (89%)</td>
<td>43 (88%)</td>
<td>13 (93%)</td>
</tr>
<tr>
<td>Documented infection</td>
<td>9 (32%)</td>
<td>10 (20%)</td>
<td>6 (43%)</td>
</tr>
<tr>
<td>hypercreatinemia (serum creatinine &gt;2mg/dl or more than twice of baseline)</td>
<td>1 (4%)</td>
<td>4 (8%)</td>
<td>6 (29%)</td>
</tr>
<tr>
<td>hyperbilirubinemia (serum bilirubin &gt;2mg/dl)</td>
<td>3 (11%)</td>
<td>11 (22%)</td>
<td>6 (29%)</td>
</tr>
<tr>
<td>CRP (elevation (serum CRP &gt;15 mg/dl)</td>
<td>4 (14%)</td>
<td>15 (31%)</td>
<td>9 (64%)</td>
</tr>
<tr>
<td>aGVHD (II-IV)</td>
<td>4 (14%)</td>
<td>18 (36%)</td>
<td>7 (58%)</td>
</tr>
<tr>
<td>OS (1-year)</td>
<td>87%</td>
<td>70%</td>
<td>56%</td>
</tr>
<tr>
<td>TRM (1-year)</td>
<td>5%</td>
<td>17%</td>
<td>30%</td>
</tr>
</tbody>
</table>

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THROMBOTIC MICROANGIOPATHY AFTER HSCT: MUCOSITIS AS A RISK FACTOR FOR SURVIVAL AND HIGH PREVALENCE OF ACUTE GVHD, CMV AND GRAM POSITIVE INFECTIONS

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INTRODUCTION: Thrombotic microangiopathy is a rare complication after HSCT. Given the different pathophysiology of the disease and high mortality observed, our purpose is evaluating clinical characteristics of these patients and risk factors for survival.

PATIENTS AND METHODS: From 1991 to 2004, 1066 HSCT were performed at HC-UFPR (Curitiba, Brazil). We identified in our database 17 patients with the diagnosis of thrombotic microangiopathy (prevalence of 1.6%). M=4/F=13, Median age (y)=11; Diagnosis included: AML: 2; Fanconi anemia: 4; Acute leukemias: 7, Others 2.

Conditioning regimen consisted of BUCY in 9/17 (52%); CI + TBI in 3/17 (18%) of the patients, NMA regimens in 18% and others in 12% of the patients. Immune prophylaxis consisted of CSA and MTX in 52% of the patients. Twelve patients received related and five received unrelated donor transplant.

Marrow was the stem cell source in all but one patient who received cord blood.

Two patients were HLA identical, three patients had a class one mismatch, one patient had a class II mismatch and one patient had more than one mismatch.

Median number of cells infused were 2,57 × 108/KG.

RESULTS A-GVHD grade II-IV was present in 12 (70%) patients and extensive C-GVHD was present in only 18% of the patients. Median survival was 99 days and estimated overall survival in 23 years is only 15%, despite therapy. Infection was present in all but one patient (94%). Ten patients had serious bacterial infections (58%), eight of them by gram-positive bacteria. Fungal infection was identified in five patients (2 Candida sp and 3 Aspergillus sp). Viral infection was identified in 12 patients (eight of them with CMV positive antigenemia). Causes of death included: A-GVHD in four pt, C-GVHD in 2 patients, infection in 6 patients, bleeding in two patients and persistent disease in one patient. The only significant factor for survival was severe mucositis (more than grade II).

CONCLUSION: 1. OS was extremely low (15%) despite therapy; 2. Infection (specialy gram-positive bacterial infections and CMV positive antigenemia) was present at the majority of the patients and was the main cause of death; 3. A-GVHD was present in 52% of the patients; 4. Severe mucositis was associated to a lower survival rate (p=0.02).

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LONG TERM RESULTS OF ALLOGENIC STEM CELL TRANSPLANTATION FOR CML IN PEDIATRIC PATIENTS: A STUDY OF 25 CASES TRANSPLANTED OVER 20 YEARS IN A SINGLE INSTITUTION

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Introduction: Chronic myeloid leukemia (CML) accounts for 2-3% of the leukemias in childhood. The only potential curative treatment is allogeneic hematopoietic stem cell transplantation (HSCT), although promising results achieved with imatinib mesylate in adults substantiate its use as a therapeutic alternative for children. The aim of this study is to analyze the outcomes of HSCT in pediatric patients regarding overall survival (OS) and main causes of death.

Materials and methods: Retrospective analysis of children aged 1-17 years, diagnosed with CML who underwent HSCT in a single institution in Brazil between jan/1984 and aug/2005. Survival was estimated by Kaplan-Meier curves. Log Rank test was used for comparison of continuous variables.

Results: Fifty patients were assessed, 31 male and 19 female. Median age of 13.3 years (1-17). Forty one patients (82%) were in first chronic phase (CP1) and 9 in advanced phases. The interval between diagnosis and HSCT had a median of 17.5 months (5-84). The source of stem cells was bone marrow in 44 patients (88%), umbilical cord blood in 5 (10%) and peripheral blood stem cell in 1 (2%). Thirty nine patients (78%) underwent related HSCT and 11 (22%) unrelated donor HSCT. Conditioning regimens: busulfan and cyclophosphamide in 35 patients (70%) and TBI containing regimens in 15 (30%). Complete engraftment occurred in 82% of the transplants. Acute (a) graft-versus-host disease (GVHD) grades II-IV occurred in 44% of the patients, with 20% grade IV. Extensive chronic (c) GVHD occurred in 15/40 patients (38%). Fifteen patients (32%) relapsed after HSCT. Mortality in the study population was 48% and the main causes of death were: relapse in 6 patients (25%), a-GVHD in 6 (25%) and c-GVHD in 4 (17%). Estimated OS in 20 years was 50%, with a median survival of 1926 days. When analyzed separately, patients in CP1 who received related HSCT and immunophrophylaxis with three drugs (steroids, cyclosporine and methotrexate) had an estimated OS in 20 years of 70%.

Conclusions: 1) Long term follow up of these children with CML who underwent allogeneic HSCT demonstrate an OS of 50%, reaching 70% in low risk patients. 2) Main causes of death were relapse, acute and chronic GVHD.

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RISK FACTOR ANALYSIS FOR SURVIVAL IN 125 UNRELATED TRANSPLANTS FOR MALIGNANT DISEASES PERFORMED OVER TEN YEARS IN A SINGLE CENTER IN BRAZIL

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INTRODUCTION: Unrelated transplants are increasingly used for therapy of malignant diseases. The objective of this study is evaluating risk factors for overall survival among 125 unrelated transplants performed at the BMT center of HC-UFPR in Curitiba, Brazil.

PATIENTS AND METHODS: We analyzed results of unrelated HSCT performed from 07/95 to 06/05. Kaplan-Meier method was used to estimate overall survival. Log rank test was used to compare survival curves and Fisher’s exact test to compare of categoric
Disease status at transplantation was a significant variable for 72%, and at 10 and 15-years was 62% respectively. For those who did not succumb to TRM was 47% at 5-years, 38% at 100-days of transplantation. Overall survival (OS) of all patients long-term follow-up for those who did not succumb to early transplant-related days (range: 9-106 days) for platelets. Median duration of follow-up for neutrophil recovery was 16 days (range: 9-90 days) and 23 days of granulocyte recovery was 2 years (range: 102 days-21 years).

239 PLATEAU IN THE DISEASE-FREE SURVIVAL CURVE AFTER ALLOGENIC STEM CELL TRANSPLANTATION IN PATIENTS WITH ACUTE MYELOID LEUKEMIA MAY SIGNIFY CURE: A LONG-TERM SINGLE INSTITUTION EXPERIENCE

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Introduction: Allogeneic Stem Cell Transplantation (alloSCT) through the graft-versus-leukemia (GVL) effect holds the promise of a long-term cure in patients with acute myeloid leukemia (AML).

Methods: In an attempt to examine whether alloSCT provides long-term disease control in patients with AML, we retrospectively evaluated our experience and analyzed the outcomes of ASCT in patients with AML from 1978 to 2005.

Results: Fifty-nine males and 46 females (n=105) of median age 32 years (range: 5-60 years) were treated. Of these, 65 were in CR of a long-term cure in patients with acute myeloid leukemia. Fifty patients were transplanted in first remission. Thirty patients died between day 47 and 1050 after the HSCT, and 8 patients (18.6%) developed chronic GvHD. Twenty eight patients (65%) patients showed relapse, in 9 cases despite the GvHD. Thirty patients died between day 47 and 1050 after the HSCT, and 8 patients (18.6%) developed chronic GVHD. Twenty eight (65%) patients showed relapse, in 9 cases despite the GVHD. Thirty patients died between day 47 and 1050 after the HSCT, and 8 patients (18.6%) developed chronic GVHD. Twenty eight (65%) patients showed relapse, in 9 cases despite the GVHD.

Conclusion: Relapse remains the first cause of death in high-risk ALL patients. Non-myoeloblastic HCST seems to have limited therapeutic effect in ALL patients with advanced disease. New ideas and emerging strategies should be employed in order to improve the outcome of these patients, like enhancement of graft-versus-leukemia effects and the use HSCT in first complete remission.

240 REDUCED-INTENSITY STEM CELL TRANSPLANTATION IN PATIENTS WITH HIGH-RISK ACUTE LYMPHOBLASTIC LEUKEMIA (ALL)

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Introduction: Despite the optimal use of the antileukemic agents, reported cure rates no exceed 40% in high-risk ALL adult patients. The use of hematopoietic stem cell transplantation (HSCT) is other option in these patients and non-myoeloblastic conditioning is a friendly alternative to the conventional and more toxic myeloablative radio-chemotherapy scheme, but there is very limited information using this kind of transplantation in ALL. We prospectively evaluated the therapeutic value of non-myoeloblastic conditioning HSCT in 43 high risk ALL patients in second or subsequent remission. Patients and methods. Forty three ALL high-risk patients were prospectively allografted, using HLA-identical siblings as donors. Patients received oral busulphan 4 mg /Kg/2 days, i.e. cyclophosphamide 350 mg /m²/3 days and i.v. fludarabine 30 mg/m²/3 days; oral cyclosporin A 4 mg /Kg was started on day -1 and i.v. mofetiloxetate 5 mg /m² was delivered on days +1, +3, +5 and +11. Median age of the patients was 19 years; there were 19 females. Patients received a median of 5.0 × 10⁹ /Kg CD34 cells. Results: Median time to achieve above 0.5 × 10⁹/L granulocytes was 14 days, whereas median time to achieve above 20 × 10⁹/L platelets was 15 days. Thirteen patients (30%) are alive 491 days (median) after the HSCT. The 684-days probability of survival is 22%, whereas median survival is 200 days. Ten patients (23%) developed acute graft-versus-host disease (GVHD), and 8 patients (18.6%) developed chronic GVHD. Twenty eight (65%) patients showed relapse, in 9 cases despite the GVHD.

Conclusion: Acute myeloid leukemia may signify cure: a long-term single institution experience.

241 NEOLOGICAL COMPLICATIONS IN THE RECIPIENTS OF ALLOGENEIC HEMATOPOIETIC CELL TRANSPLANT

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The prevalence of neurological complications in allogeneic hematopoietic cell transplant (alloHCT) recipients, the mechanisms of their development, and its impact on outcome are not well defined. We reviewed the medical records of 302 consecutive patients, who underwent alloHCT for hematologic diseases at Princess Margaret Hospital between January 2002 and November 2005. Patient, disease and transplant related factors were systematically analyzed. Stem cells were obtained via peripheral blood (n=213) and bone marrow matched siblings or unrelated, 70% (n=98) from an HLA-matched unrelated donors (n=52) and HLA-mismatched donors (n=28). Median age of the recipients was 45 years.

Poster Session II