

respectively,  $p < 0.001$ ), and CMV disease in initially-viremic patients (2.1%, 33.0%, and 0%, respectively,  $p < 0.001$ ).

**Conclusion:** We can conclude that Haploidentical HSCT is associated with promising outcomes in terms of successful engraftment and reduced complications. Engraftment success has been noticed in the majority of patients with severe and very severe AA, while TRM and GvHD rates were acceptable. NMA conditioning was better in terms of lower CMV viremia and acute GVHD but not in terms of RRT, mortality and engraftment. The addition of PTCy regimens have showed lower GvHD and lower CMV incidence at a price of non-significant increase in the incidence of mortality per year. NMA vs. RIC and PTCy vs others may be used depending on both patient's and donor's profiles besides each institution's setup and resources Recommendation: Still we are in need of more studies to weigh the risk and benefits of Haplo SCT in AA.

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#### OP 18

##### Long-term results of allogeneic peripheral blood hematopoietic stem cell transplantation for severe aplastic anemia

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**Objective:** Aplastic anemia (AA) is a life-threatening disorder of hematologic stem cell which, if untreated, may be associated with significant morbidity and mortality due to the recurrent infections or bleeding. Currently, the first treatment option is allogeneic hematopoietic stem cell transplant (allo-HSCT) for patients younger than 40 years. Bone marrow is recommended as the stem cell source due to less graft versus host disease (GVHD) risk and better outcomes than peripheral blood (PB)-derived stem cell. Recently, a few data of PB-derived allo-HSCT in AA has been published, due to its easy applicability and early engraftment advantage. The aim of this study is to share the data of AA patients who have underwent PB-derived allo-HSCT in our bone marrow transplantation center.

**Methodology:** Twenty-seven patients who underwent PB-derived allo-HSCT from human leukocyte antigen matched sibling donors were analyzed retrospectively.

**Results:** The median follow-up time of the patients was 95.2 months (range, 4.8–235 months). The 10-year survival was 89%. The median neutrophil and platelet engraftment time was 11 days (range, 9–16 days) and 13 days (range, 11–29 days, respectively). Primary platelet engraftment failure was observed in only 1 patient (3.7%). Acute and chronic GVHD observed in 2 (7.4%) and 3 (11.1%) patients, respectively. Neutropenic fever was observed in 13 (44.8%) of patients until the engraftment after allo-HSCT. One patient died due to CMV

infections, two died due to septic shock secondary to fungal infection.

**Conclusion:** This study demonstrated that PB is the stem cell source of choice for patients with SAA.

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PEDIATRIC HEMATOLOGY  
HEMATOLOGY – GENERAL

#### OP 19

##### Hematological parameters and peripheral blood morphologic abnormalities in children with COVID-19

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**Objective:** The aim of this study is to evaluate the hematologic parameters and peripheral blood cell morphological changes in children with COVID-19 and compare them with those of children suspected but then confirmed to be negative for SARS-CoV-2.

**Methodology:** Thirty children were tested to be positive for SARS-CoV-2 and the remaining 40 were negative. Hemoglobin, leukocyte, neutrophil, lymphocyte, monocyte counts according to age-specific intervals, platelet, large unstained cell counts, and delta neutrophil index were recorded. Differential counts were formulated by manual counting and morphology of the blood cells were evaluated.

**Results:** The mean leukocyte counts of the SARS-CoV-2 positive and negative groups were  $7.0 \pm 3.7 \times 10^9/L$  and  $10.4 \pm 7.1 \times 10^9/L$ , respectively ( $p < 0.05$ ). Nine (30%) children with COVID-19 had lymphopenia. Among children with COVID-19, absolute lymphocyte count was lower in those with pneumonia ( $p < 0.05$ ). Reactive lymphocytes were noted in 77.8% and 90% in the SARS-CoV-2 test positive and negative groups, respectively ( $p > 0.05$ ). Mean absolute neutrophil counts of the SARS-CoV-2 test positive and negative groups were  $3.7 \pm 2.9 \times 10^9/L$  and  $5.4 \pm 4.2 \times 10^9/L$  ( $p < 0.05$ ). Four patients (13.3%) with SARS-CoV-2 test positive had neutrophilia and seven (23.3%) had mild neutropenia. In the peripheral smear, vacuolated monocytes and dysplastic changes in neutrophils and platelets were noted in both groups.

**Conclusion:** Leukocyte, neutrophil and monocyte counts were significantly lower in children with COVID-19 compared with symptomatic children without COVID-19. Lymphopenia, reactive lymphocytosis and dysplasia, could be noted in children with COVID-19. Further studies on hematological findings linked with the course of the disease in children are warranted.

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