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Recent trends in Treatment of Acute Myeloid Leukemia

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Editorial Note

Acute myeloid leukemia (AML) is characterized by genetic aberrations and a variable response to the therapy has made the treatment of AML challenging. However, Hakim A et al. [1] in the review article discussed about the varied conventional treatments most likely the Chemotherapy, Irradiation and Haematopoietic stem cell transplantation (HSCT). Each of the conventional treatment comes with its own set of shortcomings/ limitations in terms of side effects, toxicity and efficacy respectively. Unfortunately, the overall 5-year survival from AML remains poor, particularly in adults and in the elderly. Nevertheless, the author has also provided insights into the novel therapies that needs to be developed within the conventional methods. Finally, the paper reviews the novel pathways where future interventions may have therapeutic potential.

Stem cell transfusion have undeniable benefits for patients with Acute Myeloid Leukemia (AML) especially for augmenting the mostly suppressed normal precursor stem cell necessary for fighting infections. Faduola [2] in this review draws out a comparison regarding the source of the stem cell transfusion. Stem cells can be collected from the bone marrow, umbilical cord blood and the peripheral blood stem cells that may be from own or HLA partially mismatched unrelated or related donors. Several factors taken into consideration for the comparison include Hematopoietic recovery [3], Graft versus host disease [4], relapse [5], mortality [6] and survival [7]. This comparison is aimed at improving the quality of decision taking on source of stem cells for transfusion in cases of AML.

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Mansnerus et al. [8] in his review shows how interdisciplinary teamwork (ID-T) in the Translational Medicine of Acute Myeloid Leukaemia (AML) could encourage scientific and clinical teams to approach leukaemia through a number of different disciplines by sharing data and findings with each other and acting on information produced by other teams to create projects where the summation of outputs/outcomes is much greater than each of the discipline.

Acute Myeloid Leukemia (AML) is the prevalent form of acute leukemia particularly in adults along with other age groups accounting for less than 10 percent. But it is still unclear which of the treatment option is best for consolidation. The treatment decisions for patients with AML should be made on a case by case basis taking into consideration age, health and other factors.

References

- 1 Faduola P, Hakim A, Mansnerus J, Imai A, Neill RO (2013) Acute myeloid leukaemia – Therapy: Past, present and future. *Transl Biomed* 4: 1-18.
- 2 Faduola P (2013) Comparing sources of stem cells for transfusion in acute myeloid leukemia. *Transl Biomed* 4: 1-6.
- 3 Migliaccio AR, Adamson JW, Stevens CE, Dobrila NL, Carrier CM, et al. (2000) Cell dose and speed of engraftment in placental/umbilical cord blood transplantation: Graft progenitor cell content is a better predictor than nucleated cell quantity. *Blood* 96: 2717-22.
- 4 Ballen KK (2005) New trends in umbilical cord blood transplantation. *Blood* 105: 3786-3792.
- 5 Wierenga PK, Setroikromo R, Kamps G, Kampinga HH, Vellenga E (2002) Peripheral blood stem cells differ from bone marrow stem cells in cell cycle status, repopulating potential, and sensitivity toward hyperthermic purging in mice mobilized with cyclophosphamide and granulocyte colony-stimulating factor. *J Hematother Stem Cell Res* 11: 523-532.
- 6 Champlin RE, Schmitz N, Horowitz MM (2000) Blood stem cells compared with bone marrow as a source of hematopoietic cells for allogeneic transplantation. *Blood* 95: 3702-3709.
- 7 Ghavamzadeh A, Iravani M, Ashouri A, Mousavi SA, Mahdavi N, et al. (2008) Peripheral blood versus bone marrow as a source of hematopoietic stem cells for allogeneic transplantation in children with class I and II beta thalassemia major. *Biol Blood Marrow Transplant* 14: 301-308.
- 8 Mansnerus A, Faduola P, Hakim A, Imai A, O'Neill R (2013) Interdisciplinary intergrative skills and acute myeloid leukaemia research. *Transl Biomed* 4: 1-8.