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ACUTE PROMYELOCYTIC LEUKEMIA AND STEM CELL TRANSPLANTATION: CASE SERIES, SINGLE-CENTER EXPERİENCE

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INTRODUCTION

Hematopoietic stem cell transplantation (HSCT) is not recommended as a first-line treatment for APL patients in CR1. It is only recommended for patients in CR2 or beyond after salvage therapy in relapsed or refractory APL.

AIM

The objective of this case report is to retrospectively present patients previously diagnosed with acute promyelocytic leukemia (APL) who underwent hematopoietic stem cell transplantation (HSCT) in our clinic.

METHOD

Patients were analyzed retrospectively. Patient information was obtained from patient files and the hospital information system. The results were organized as case reports.

RESULTS

Four cases are presented. Case 1 is a 55-year-old male patient diagnosed with AML M3 in January 2018, who underwent allogeneic stem cell transplantation (ASCT) in June 2018. Case 2 is a 19-year-old male patient diagnosed with AML M3 in September 2008, who underwent ASCT in June 2009. Case 3 is a 43-year-old female patient diagnosed with AML M3 in 2006, who underwent ASCT in September 2013. Case 4 is a 54-year-old male patient diagnosed with AML M3 in 2012, who underwent ASCT in December 2013. Each case had different treatment courses and outcomes, including remission, relapse, and eventual death.

CASE	Case 1	Case 2	Case 3	Case 4
Age/gender	55/male	19/male	50/female	54/male
Diagnosis date	Jan 2018	Sep 2008	Jan 2013	Mar 2012
At the diagnosis t(15:17)	positive	NA	positive	positive
Disease type/ chemotherapy courses before transplant	Refractory/2	Refractory/2	Relaps/2	Relaps-refractory/4
Pre- transplant bone marrow examination/ t(15:17)	Remission/negative	Remission/negative	Remission/negative	Remission/positive
Transplant type/ transplant protocol	Allo-SCT(10/10 sibling)/Bu+Cyc	Allo-SCT(9/10 sibling)/Bu+Cyc	Auto-SCT	Auto-SCT
Transplant date	June 2018	June 2009	Oct 2013	Oct 2013
Follow-up time	48 month	156 month	58 month	8 month
Outcome	Alive in remission	Alive in remission	Exitus not disease related	Exitus disease related

CONCLUSIONS

The presented cases highlight the diverse treatment approaches and outcomes of patients with APL who underwent HSCT. While current evidence is limited to retrospective studies, the recommendations lean towards autologous HSCT for CR2 patients and allogeneic HSCT for those with early relapse or beyond CR2 (1-3). Prospective studies are necessary to provide more conclusive evidence and guidelines for HSCT in APL management.

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