

HEMATOLOGY AND BONE MARROW TRANSPLANTATION

July 25-26, 2019 | Amsterdam, Netherlands

GLOBAL HEMATOLOGY 2019







SCIENTIFIC TRACKS & ABSTRACTS DAY 1

DAY 1 SESSIONS JULY 25, 2019

Hematology

SESSION CHAIR

Varsha Gandhi

University of Texas MD Anderson Cancer Centre, USA

SESSION CO-CHAIR

Erfried Pichler
Austrian Society of Homeopathic Medicine, Austria



Title:

Global response assessment by advanced imaging and myeloma lesion biopsies during induction therapy of multiple myeloma with Carfilzomib Lenalidomide Dexamethasone (CRD)

Natalia Neparidze, Yale University, USA

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Natalia Neparidze et al., Hematol Blood Disord 2019, Volume 2

GLOBAL RESPONSE ASSESSMENT BY ADVANCED IMAGING AND MYELOMA LESION BIOPSIES DURING INDUCTION THERAPY OF MULTIPLE MYELOMA WITH CARFILZOMIB LENALIDOMIDE DEXAMETHASONE (CRD)

Natalia Neparidze, Stuart Seropian, Terri Parker, Noffar Bar, Tara Anderson, Julie Baker, Alfred Lee, Nikolai Podoltsev, Stephanie Halene, Mina Xu, Wei Wei, Andrew Lischuk, Brittany Branson and Andrew Haims

Yale University, USA

Background: Despite multiple advances in the treatment multiple myeloma (MM) remains an incurable hematologic malignancy. MM is a multi-focal process with heterogeneous involvement of skeleton and/or soft tissues. Focal myeloma lesions identified by advanced imaging may be the sanctuary sites of residual disease after treatment. In this study author systematically evaluate response by using whole body MRI (WB-MRI) and guided myeloma lesion biopsies to optimize assessment of response. They hypothesize that response assessment with WB-MRI and myeloma lesion biopsy will increase the detection rate of residual/refractory disease by about 20%, as compared with standard response evaluation.

Methods: This is a prospective single arm study for patients with newly diagnosed MM. All patients undergo a standard bone marrow (BM) biopsy, skeletal survey, WB-MRI and guided myeloma lesion biopsy at study entry. All patients receive an induction therapy with four cycles of carfilzomib, lenalidomide and dexamethasone (CRD) regimen. After completion of induction, all patients undergo MM response assessment using standard methods, as well as with repeat WB-MRI and guided biopsy of any residual MM lesions. They anticipate enrolling 35 patients on this study. Preliminary data from interim analysis of the study are presented.

Results: To date, eight subjects have been enrolled. Three subjects have completed treatment and all of them have achieved very good partial response (VGPR) or better. Of note, complete responses as assessed by WB-MRI and lesion biopsies have been observed. Thus far, at study entry 50% of patients are identified to have differential findings in morphology, cytogenetics and FISH when BM biopsies versus guided lesion biopsies are compared.

Conclusion: They expect this method of response assessment with advanced imaging and myeloma lesion biopsy will lead to improved response assessment in MM. This approach will help identify patients with large residual disease burden and this in turn will lead to better risk-stratification of patients prior to autologous stem cell transplant.

BIOGRAPHY

Natalia Neparidze obtained Medical Degree from AIETI Medical School in Tbilisi, Georgia; subsequently completed Postdoctoral Research Fellowships at Emory, North western and Yale Universities, followed Residency and Hematology/Medical Oncology Fellowship at Yale University. She has served as an Assistant Professor at Yale University School of Medicine since 2012 with research focus on multiple myeloma. Her work has been widely published in peer-reviewed journals. She serves as a principal investigator on multiple clinical trials in myeloma.

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SCIENTIFIC TRACKS & ABSTRACTS DAY 2

DAY 2 SESSIONS

JULY 26, 2019

New Drug Discovery in Hematology | Metabolic Syndrome

SESSION CHAIR

Gary B Melton

University of Colorado Anschutz Medical Campus, USA

SESSION CO-CHAIR

Izzard Aglua

Sir Joseph Nombri Memorial-Kundiawa General Hospital, Papua New Guinea

SESSION INTRODUCTION

Title: Macrocytosis without anemia found in two Shiba dogs

Sakurako Neo, Azabu University, Japan

Title: Optimizing future excellence in hematology diagnosis and transplantation

Ayesha J, Shifa International Hospital, Islamabad



HEMATOLOGY AND BONE MARROW TRANSPLANTATION

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Sakurako Neo et al., Hematol Blood Disord 2019, Volume 2

MACROCYTOSIS WITHOUT ANEMIA FOUND IN TWO SHIBA DOGS

Sakurako Neo, E Ogawa and H Ochiai

Azabu University, Japan

Background: Compared with other dog breeds, erythrocytes in healthy Shiba dogs (Shibas) are typically microcytic. Approximately 10% of Shibas have erythrocytes with high K, low Na and high glutathione (GSH) concentrations, termed HK/HG cells. HK/HG cells have higher MCV (76.0 ± 5.1 fL [mean \pm SD]) than HK/LG cells (high K, low Na and low GSH) at 65.0 - 68.0fL or LK cells (low K, high Na and low GSH) at 65.7 ± 4.1 fL. Concentrations of several amino acids, including glutamate (Glu), aspartate (Asp) and glutamine (Gln) in HK/HG cells are higher than those in LK cells. Author's encountered two atypically macrocytic Shibas without anemia.

Objectives: This study aimed to investigate the physiological characteristics of erythrocytes in atypically macrocytic Shibas (Macs).

Methods: Blood samples were collected from two atypically macrocytic Shibas and three typical Shibas with HK/HG cells (HK/HG) using EDTA or heparine as the anticoagulant. CBC, concentrations of K, Na, GSH and 20 amino acids including Glu, Asp and Gln within erythrocytes were compared.

Results: MCV was higher in Macs than in HK/HG cells (Macs: 95.7 or 92.1fL, HK/HG 64.8–67.4fL). High K (Macs: 114 or 120mmol/L, HK/HG 119–138mmol/L), low Na (Macs: 8 or 7.2mmol/L, HK/HG: 8.9–11.5mmol/L) and high GSH (Macs: 51.3 or 53umol/gHb, HK/HG 32.2–36.3umol/gHb) concentrations within erythrocytes, indicating Macs' erythrocytes to be HK/HG cells. Total amino acid concentrations were approximately 2.5 or 5-fold higher in Macs compared to HK/HG cells.

Conclusion: Higher amino acid concentrations may be attributable to macrocytosis in Shiba dogs.

BIOGRAPHY

Sakurako Neo completed PhD from Azabu University, Japan in 2005, finished veterinary clinical pathology residency program in 2008 and became a Diploma of Veterinary Clinical Pathologist (ACVP) in 2010. Currently she is working as an Assistant Professor in Veterinary School, Azabu University. Her research interest includes hematology (Specie specific hematology, eryptosis and microparticles) and coagulation.

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Ayesha J, Hematol Blood Disord 2019, Volume 2

OPTIMIZING FUTURE EXCELLENCE IN HEMATOLOGY DIAGNOSIS AND TRANSPLANTATION

Ayesha J

¹Shifa International Hospital, Islamabad ²Shifa Tameer-e-Millat University, Islamabad

ematological malignancies are complex, not only towards diagnostic end but towards defining prognostic groups and available treatment options. In the recent past with a huge influx of newer options, the things are improving at the management end of the hematological cancers. The diseases which were labeled as "Death warrants" have now become "Chronic ailments". Though there still exists a wide gap between a "Good productive life" and "Increased survival ship" after the diagnosis of a hematological cancer, the distances are definitely bridged. With an individualized approach now, after defining genetic lesions, newer immune, targeted and vaccine therapies are now in the market to hit the cancer from different angles. At the same time affordability, after the technical provision of a treatment modality remains the highest concern for the fatally affected patients. Peripheral blood stem cell (PBSC) transplants remain one curative option for the developing world like Pakistan, where CART-T and Immune therapies are simply not financially realistic. Authors have performed 183 autologous and allogenic PBSC transplants in our tertiary care hospital for various hematological malignancies including acute leukaemias, multiple myeloma and lymphoma. While autologous showing better overall three and five year survival as compared to allogenic transplants, this modality is a ray of hope for the longer survival in AML like otherwise fatal disorders. They started transplant services in year 2013, with the ideal inclusion criteria of "Disease in first remission" after the diagnosis of a blood malignancy, but over a course of five years had to include many young patients with multiple relapses and without initial prognostic genetic profiling. Two methods for cryopreservation of the harvests at -800C were used; One with DMSO and saline only and the other with addition of 6% albumin. A review of survival ship and engraftment shows better results with the first method.

BIOGRAPHY

Ayesha J qualified as a Medical Doctor at the age of 23 years from king Edward Medical University, Lahore. She passed her membership and fellowship examinations in year 2002 and 2003 from CPSP Pakistan after completing four years of rigorous training. She got training in cytogenetics and FISH techniques from UCLA, USA in year 2008 for the diagnosis and prognosis in hematological malignancies. She became Professor of Pathology in year 2011 after 12 years of under graduate teaching. She cleared her qualifying examination from council of Canada in year 2012. Currently she is working in a JCIA accredited tertiary care hospital as Consultant Hematologist since 2008. With over 25 publications in national and indexed journals, she is a supervisor and program director in the subject of Hematology of CPSP Pakistan, since 2013 and has the credit of training five young hematologists, while six doctors are still under her training.

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