S-H-5

ICE/BEAM chemotherapy & peripheral blood stem cell (pbsc) rescue for relapse after bone marrow transplantation (BMT)

W.Y. Au, A.K.W. Lie, C.K. Lee, R. Liang, C.S. Chim, Y.H. Leung, Y.L. Kwong. *Department of Medicine*, Queen Mary Hospital, Hong Kong

Background : Prognosis of post-BMT relapse of leukemia/lymphoma is poor. We study the utility of intensive chemotherapy with allogeneic PBSC rescue in such patients, with a view to hastening marrow recovery and augmenting the graft versus leukemia/lymphoma effect. *Method:* From 12/97-8/99, 9 cases (1 chronic myeloid leukemia blastic transformation (CML-BT),4 acute myeloid leukemia (AML),2 acute lymphoblastic leukemia (ALL), 1 nonHodgkin's lymphoma (NHL), 1 Hodgkin's disease (HD)) were treated. Chemotherapy was ICE (idarubicin, cytosine arabinoside, etoposide) for leukemia and mini-BEAM (BCNU, etoposide, cytosine arabinoside, melphalan) for lymphoma. Their median age was 40 (range 28-47). PBSC (median 2.3 x10^6/kg CD34+ve cells, range 1.37-3.03) from previous donor was infused with no graft versus host disease (GVHD) prophylaxis. *Results:* All patients were high-risk cases. The median time to relapse was 45month (mo.) post BMT (range 4-80). The median time to white cell recovery was 12 days (range 8-16). Two patients (AML, CML-BT) died of refractory disease. Seven cases (78%) achieved morphological remission. Two patients died at 2 mo. (cerebral bleeding) and 4 mo. (relapse). Five cases (56%) are alive in remission (follow up 2-6 mo.) One patient survived pulmonary aspergillosis with synegeneic PBSC rescue. *Conclusions:* Intensive chemotherapy and PBSC rescue is a feasible salvage option for post BMT relapse. Survival and remission rates compare favorably with second BMT or palliative chemotherapy and donor lymphocyte infusion. The rapid neutrophil recovery reduced infective complications. No increased GVHD was apparent. Good results are expected for late relapses with preservation of donor chimerism.

S-H-6

THE RELATIONSHIP BETWEEN THE LEVELS OF GRANULOCYTE-COLONY STIMULATING FACTOR AND LEUKOCYTOSIS INDUCED BY ALL-TRANS RETINOIC ACID IN ACUTE PROMYELOCYTIC LEUKEMIA

Wu Wen. Division of Haematology/Oncology and Bone Marrow Transplant Unit,UDM,QMH

Differentiation therapy with all-trans retinoic acid (ATRA) had been attemted with success in acute promyelocytic leukemia (APL) for many years,complete remission rates ranged between 80% to 90% in newly diagnosed patients. Clinical response in 33~75% of the patients was accompanied by a transient rise in the peripheral leukocyte count. The "Retinoic Acid Syndrome" was the main cause of death in differentiation therapy. In order to explore the mechanism of leukocytosis, ELISA method was used in detecting levels of serum G-CSF in 47 cases of APL during treatment with ATRA. It was found that the peak of increased serum G-CSF level occured on the 9th day, and WBC number was the highest on 11th day. After ATRA treatment, both serum G-CSF level and WBC number increased in 68.1% of the cases. In 19.2% of the cases treated, serum G-CSF level was increased but without obvious change in WBC number, and the reverse was true in 12.7% of the cases.Serum G-CSF level was statistically correlated to the number of WBC, promyelocytes and its late stage by Spearman rank correlation analysis. There was no relationship between serum G-CSF level and lymphocyte. The result showed the change of WBC and serum G-CSF level in APL after the treatment with ATRA were connected.