nal bone marrow involvement. This study was purposed to demonstrate the usefulness of immunohistochemistry to reveal minimal bone marrow involvement of blastic plasmacytoid dendritic cell neoplasm.

**Design and Methods:** 8 patients who were diagnosed as blastic plasmacytoid dendritic cell neoplasm from June 2008 to September 2008 were investigated. Except 2 patients who didn’t receive bone marrow study, immunohistochemistry of CD14, CD85 and CD123 was done on biopsies or excision to confirm minimal bone marrow involvement. Results: On initial morphologic diagnosis, bone marrow involvement was found in only 1 patient of 8 who received bone marrow biopsy. But Immunohistochemistry revealed minimal bone marrow involvement of 8 patients (CD14: 14/15, CD85: 9/15, CD123: 14/15). Those bone marrow had been morphologically normal. Conclusions: Minimal bone marrow involvement of blastic plasmacytoid dendritic cell neoplasm can be precisely detected by immunohistochemistry. So we recommended CD14, CD85 and CD123 immunohistochemistry for the patients with blastic plasmacytoid dendritic cell neoplasm even though initial bone marrow study shows normal morphology.

**1389 COMPARISON OF SECONDA RY ACUTE MYELOID LEUKEMIA WITH DE NOVO AML: CLINICAL FEATURES AND TREATMENT OUTCOME**

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Background: Secondary acute myeloid leukemia (AML) includes AML in patients who were exposed to chemotherapeutic and/or radiotherapy previously (t-AML) or AML evolving from myelodysplasia/myeloproliferative disorder (m-AML). Aims: We intended to investigate the clinical features at diagnosis and the therapeutic outcomes of t-AML and m-AML, comparing with those of de novo AML (d-AML). Design and Methods: Between June 1989 and July 2008, 886 consecutive patients with newly diagnosed AML in Assan Medical Center, Seoul, Korea were included in our retrospective analysis. Patients were classified into the three groups of d-AML (n=816, 92.1%), m-AML (n=46, 5.2%) and t-AML (n=24, 2.7%). The data of clinical-pathologic findings and clinical outcomes were retrieved from the Assan Medical Center Leukemia Registry. Results: Median number of peripheral blast count at diagnosis was lower with m-AML (14x10^9/L) and t-AML (2.9x10^9/L) than patients with d-AML (5.1x10^9/L) (p<0.001). Proportion of blasts in bone marrow nucleated cells was also significantly different among the three groups (24.6%, 45.6%, and 55.0% for d-AML, m-AML and t-AML respectively, p<0.001). More than 80% of patients in each group received induction chemotherapy. The complete remission (CR) rate after induction therapy was significantly higher in d-AML than m-AML (113/282 [39.9%] vs 56/190 [29.5%], p=0.021) and 12/20 [60%], respectively, p<0.001). The 3-year overall survival (OS) rate in m-AML and t-AML was lower than d-AML patients (98% and 81.8% vs 82.1%, respectively, p<0.001). We observed no statistically significant difference in disease free survival (DFS) and event free survival (EFS) among the three groups. More patients with t-AML tended to die of non-relapse causes that those with m-AML after the first CR achievement (4/15 [33.3%] vs 4/38 [10.5%]). HCT was performed for 184 (22.2%) of 816 patients with d-AML, 12 (12.1%) of 46 patients with m-AML and 3 (12.5%) of 24 patients with t-AML. Of those, 7 (6% of the 816 patients whose HCT followed remission induction and 58% of those who underwent HCT) of 3 patients underwent HCT, three patients underwent HCT in the first complete remission state followed by transplantation and the other two patients were relapsed after transplantation, and all subsequently died. Conclusions: Our results suggest that prompt HCT may be more preferable therapeutic option particularly for patients with m-AML. To improve the overall outcome of patients with t-AML, novel therapeutic strategies are needed.