Epidemiologic study and mutation profile of patients with Chronic Myeloid Leukemia (CML) in Indonesia

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The aim of this study is to perform an epidemiologic study of CML and to see the influence of BCR ABL mutation on the response to Imatinib (IM) of CML patients in Indonesia. This study was a cross sectional, open-label, single arm, non randomized study. The samples were CML patients from 6 centers in Indonesia who were treated with IM during January 1st, 2009 up to December 31st, 2011. The inclusion criterion was male or female 17-70 years old and was confirmed as CML by the BCR ABL PCR method. The BCR ABL gene mutation is studied by the Sanger direct sequencing method. Of the 100 CML patients studied, the median age was 34-35 years old. 67% CML patients in this study had been treated with hydroxyurea before IM was started. The patient who consumed hydroxyurea more than 6 months had more difficult to give complete hematologic response in 3 months than those who consumed hydroxyurea in less than 6 month. Interestingly, there were two blastic crisis CML patients who achieved chronic phase again and complete hematologic response within 3-5 month subsequently. 89% patients were still alive until 2 years follow up. Of 51 patients who had the sequencing test performed, 15 had mutations of their BCR ABL gene. One patient had P-loop mutation, while 14 patients had non P-loop mutations. The patient with P-loop mutation did not achieve complete hematologic response in 3 month. Six of 15 patients with mutation were non responsive to imatinib, while 9 of 15 patients with mutation could achieved complete hematologic response in 3 months.

Biography

Arry Harryanto Reksodiputro completed his PhD from Leiden University. He is now a Professor in Faculty of Medicine, University of Indonesia, and also President of ISHMO (The Indonesian Society of Hematology-Medical Oncology).