Breast cancer resistance protein in acute myeloid leukemia: Clinical relevance and prognostic significance

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Acute myeloid leukemia (AML) is a genetically heterogeneous clonal disorder characterized by the accumulation of acquired genetic alterations in hematopoietic progenitor cells. The multidrug transporter Breast Cancer Resistance Protein (BCRP) gene expression is an important prognostic marker in adult AML. In this study, we measured BCRP mRNA expression by quantitative real-time RT-PCR in 100 de novo cytogenetically normal adult AML patients and 50 healthy normal controls. The expression was evaluated in relation to other clinical and prognostic factors as well as response to treatment and disease-free survival. There was a positive correlation between BCRP gene over-expression and the percent of CD34 expression. This coexpression was associated with a lower complete response (CR) rate and with worse event-free survival and overall survival. We conclude that co-expression of CD34 and BCRP reflects a clinically resistant subgroup of adult AML.

Biography

Heba Gouda has completed her MD degree since 2005 she has more than 26 international publication in the field of hematology and stem cell research, she is a full professor of clinical and chemical pathology since 2010 at the school of medicine Cairo University (ranked among the first 250 medical schools all over the world). She has a professional health care and hospital management diploma from the American University in Cairo since 2017.

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