

## 2<sup>nd</sup> International Conference on **Hematology & Blood Disorders**

September 29-October 01, 2014 DoubleTree by Hilton Baltimore-BWI Airport, USA

### **Chronic myeloid leukemia: Emergency onset followed by the achievement of complete cytogenetic and major molecular responses and long-term survival**

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Chronic myeloid leukemia (CML) may be associated with the life-threatening emergencies, including thrombotic and infectious complications, splenic infarcts, bleeding. A 21-year-old girl experienced an abrupt onset of the disease in June 2006, with a sharp pain in the projected area of the left ovary. She was hospitalized at the National Research and Practical Emergency Medicine Center with the diagnosis of left-sided ovarian apoplexy. The saturation of the left ovary was performed. The revealed splenomegaly, anemia and elevated leukocyte count required the consultation by hematologist from the Institute of Oncology. The patient was admitted to the Division of Hematology at the Institute of Oncology in June 2006 with the left upper abdominal quadrant fullness and anemic syndrome. Clinical examination and ultrasound scanning showed moderate splenomegaly and slight hepatomegaly. ECOG-WHO performance status score: 2. Blood count: Hb 85 g/l, er.  $3.4 \times 10^{12}/l$ , leuk.  $430.0 \times 10^9/l$ , plt.  $510.0 \times 10^9/l$ , ESR 4 mm/h, with the shift to the left up to blast cells 9%. Bone marrow aspiration detected hypercellularity, myeloid hyperplasia (84.0%) and normal rate of blast cells (1.0%). Cytogenetic analysis and real-time quantitative PCR of the bone marrow cells revealed Ph chromosome and BCR-ABL transcript in 100%. Diagnosis: CML, chronic phase; Socal's prognostic risk score: 0.78 (low-risk group). The patient underwent chemotherapy with hydroxyurea 3000 mg daily, with the achievement of partial hematologic response. In 2007, she started chemotherapy with imatinib mesylate at a dosage of 400 mg daily, with the achievement of complete hematologic response and minor cytogenetic response (Ph chromosome: 60%). ECOG-WHO performance status score hit 0. Due to the persistence of Ph chromosome-bearing bone marrow cells the dosage of imatinib was increased up to 600 mg daily. The repeated FISH analysis of the bone marrow cells didn't revealed Ph chromosome. The real-time quantitative PCR showed the major molecular response (BCR-ABL transcript: 0.03%). Overall survival accounts 95 months, and relapse-free survival-54 months (by June 2014). The patient continues her professional activity, with a good life quality.

#### **Biography**

Vasile Musteata completed his PhD and MPH at the age of 30 years and 39 years respectively after the Postgraduate studies at the State University of Medicine and Pharmacy "N. Testemitanu" from the Republic of Moldova. He is an Associate Professor and deputy Head for education at the University Department of Oncology, Hematology and Radiotherapy, the GIPAP manager, EACR Ambassador, iCMLf representative for Moldova and the European LeukemiaNet member. He has published more than 100 articles and abstracts in reputed journals/abstract books, and has been serving as an Editorial Board Member of the Journal of BUON.

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