LETTER TO THE EDITOR

Sevastiani Syrioti

Medical University of Sofia, Sofia, BULGARIA

Dear editor,

In the ''Retrospective analysis of chronic myeloid leukemia patients in Trakya University School of Medicine," the authors summarize the use of imatinib which is a tyrosine kinase inhibitor (TKI) in chronic and accelerated phases of the disease as a first-line treatment (1). They stated that the side effects of drugs, insufficient responses, and non-compliances are reasons for switching the drug of choice. I read the article with great interest, paid special attention to the laboratory investigations and physical examinations, thus I would like to underline some points and suggest an alternative perspective to the clinical investigation and treatment options.

The laboratory results given in the study needed to have a clearly stated timeline based on the time of diagnosis. Likewise, some important parameters were missing such as uric acid, creatinine, potassium, phosphorus levels. The side effects that the patients and the clinicians face such as tumor lysis syndrome observed on newly diagnosed patients could be mentioned. Tumor lysis syndrome is a metabolic complication following rapid cancer therapy especially using chemotherapeutic drugs (2). It is characterized by hyperuricemia, hyperkalemia, hyperphosphatemia, and hypocalcemia which occur due to rapid lysis of tumor cells; leading to severe renal impairment. Therefore, the use of allopurinol in the presence of uric acid before starting TKIs is suggested (2). Malignant cells contain potassium, phosphorus and some purines. When these cells die spontaneously or secondary to therapy, the influx of intracellular substances into the extracellular fluid manifests the complications mentioned above.

Another treatment option is called leukapheresis procedure which is performed even in pregnant patients to avoid teratogenic effects of chemotherapy (3). There is plenty of evidence for the symptomatic improvement especially when it is used for patients with splenomegaly. Furthermore, the presence of pretreatment predictors like OCT-1 aid the prescription of TKIs. High levels of this protein indicate superior results and lower levels of the protein suggest a higher starting dose (4).

Finally, we have to consider the contribution of interferon-alpha as an alternative treatment in the first phases of myeloid leukemia instead of imatinib in combination with stem-cell transplantation since many trials of new drugs, new strategies, and combined therapies are being developed (5).

Ethics Committee Approval: N/A

Informed Consent: N/A

Conflict of Interest: The author declared no conflict of interest.

Author contributions: Concept: SS. Supervision: SS. Re- sources: SS. Materials: SS. Data collection and/or processing: SS. Analysis and/or Interpretation: SS. Literature Search: SS. Writing Manuscript: SS. Critical Review: SS.

Financial disclosure: The author declared that this study received no financial support.

REFERENCES

1. Akay FE, Koçyiğit B, Tan B et al. Retrospective analysis of chronic myeloid leukemia patients in Trakya university school of medicine. Turkish Med Stud J 2019;6(3):70-5.

2. Belay Y, Yirdaw K, Enawgaw B. Tumor lysis syndrome in patients with hematological malignancies. J Oncol 2017: 9684909.

3. Fitzgerald D, Rowe JM, Heal J. Leukapheresis for control of chronic myelogenous leukemia during pregnancy. Am J Hematol 1986;22(2):213-8.

Address for Correspondence: Sevastiani Syrioti Medical University of Sofia, Sofia, BULGARIA
e-mail: sevastisir@hotmail.com ORCID: orcid.org/0000-0002-6258-4377
Received: 12.11.2019 Accepted: 05.12.2019 • DOI: 10.4274/tmsj.galenos.2020.07.01.08 Available at: tmsj.trakya.edu.tr

Cite this article as: Syrioti S. Letter to the editor. Turkish Med Stud J 2020;7(1):41-2.

4. Thompson PA, Kantarjian HM, Cortes JE. Diagnosis and treatment of chronic myeloid leukemia in 2015. Mayo Clin Proc 2015;90(10):1440-54.

5. Baccarani M, Martinelli G, Rosti G et al. Imatinib and pegylated human recombinant interferon-alpha2b in early chronic-phase chronic myeloid leukemia. Blood 2004;104(13):4245-51.