

IS ARSENIC TRIOXIDE USEFUL FOR THE TREATMENT OF ACUTE NON PROMYELOCYRIC MYELOID LEUKEMIA?

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Introduction and Background

Acute leukemia has a severe clinical presentation and without proper treatment it is definitely fatal. Despite recent innovative treatment modalities, the complication treatment or due to the disease nature many patients die eventually. There is no standard treatment plan for those who don't get into remission or for refractory cases. However, approach to these cases looks to be logical. Regarding the literature there isn't any preferred chemo regimen for the patients in the first relapse nor those in their second one.

Purpose

Based on acceptable toxicity of arsenic trioxide and its major role in treating acute promyelocytic leukemia, we tried to treat our refractory non APL patients with acute myeloid leukemia with this agent.

Methods

Patients referred to the Ghazi Tabatabai Medical oncology Center of Tabriz University Medical Sciences got into study during the last 3 years. They received Arsenic trioxide in 0.1mg/kg body weight dose through 2 hours of intravenous infusion for 56 days.

Results

Of 7 patients entered the study, one got complete remission, one had partial remission and 4 patients did not show significant changes. One patient did not complete the treatment. We could not find any significant relation between the time period from starting treatment and presentation of the disease. Also there was not any significant relation between the age of the patients and response to the arsenic trioxide. Median overall survival was 3.66 month.

Conclusion

According to the response rate and median overall survival of the patients it seems arsenic trioxide alone is not an appropriate treatment regimen in acute non promyelocytic myeloid leukemia. Anyway considering the sol complete remission and partial remission in our cases and acceptable adverse effects of it, it looks rational to use this drug in the well organized clinical trials in combination with other effective hence not so toxic agents.

Key words

Arsenic trioxide, Promyelocytic Myeloid Leukemia, Acute non promyelocytic myeloid leukemia