FLAG regimen with or without idarubicin in the treatment of refractory and relapsed acute myeloid leukemia: a single center experience

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Introduction

-Refractory/relapsed acute myeloid leukemia (AML) has always been a challenging problem for oncologists and the current salvage therapies are unsatisfactory.

-Between 20%-40% of patients diagnosed with AML had primary refractory disease and 40– 70% of patients who achieved a complete remission (CR) with initial therapy relapsed within two years (Se Ryeon 2009).

-Promising results have been published in recent years using fludarabine-containing combination therapy (FLAG and FLAG- Ida regimens) for refractory and relapsed AML .The toxicity of this combination regimen was also found to be acceptable.

-This study was conducted to evaluate the clinical efficacy and safety of FLAG regimen with or without idarubicin in adult patients with relapsed and refractory AML at a comprehensive cancer teaching center in Amman,Jordan.

Methods

-Patients treated with FLAG+/-Ida between January 2007 and December 2010, were identified through the pharmacy electronic database.

-Patient demographics, response to chemotherapy, and associated toxicities were recorded and evaluated.

- The primary end point was complete remission which was determined on day 21 post-chemotherapy.

Methods-Cont.

-The secondary end points were hematologic and non-hematologic toxicities which were evaluated until day 30 post-chemotherapy and were graded according to the common terminology criteria for adverse events V3.0.

Results

-During the study period, 24 patients with refractory/ relapsed AML were identified.

-The median age was 33 years (range 18-56) and 79% were males.

- The median relapse free survival was 330 days.

-Median overall survival was 109 days and treatment related mortality was (16.7%).

-Recovery of neutrophils (≥500/μL) and platelets (≥100,000/μL) required a median of 18.5 and 24 days, respectively.

-The major complication associated with treatment was neutropenic fever, which was grade 3 and 4 in 19 patients and grade 5 in 4 patients.

-Nonhematologic complications were mainly grade 1 and 2 nausea, vomiting, and diarrhea.

Conclusion

In our center, FLAG+/-Ida regimen was associated with lower CR but similar toxicity profile to what has been previously reported. Further research is warranted to inform on the optimum regimen in this population.

Results-Cont.

Figure 1:Baseline disease status

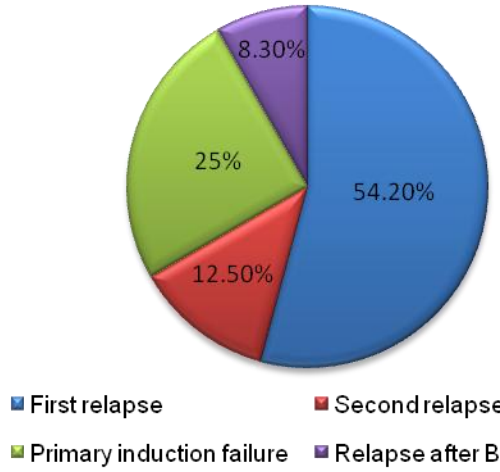

Figure :2 Clinical outcome of FLAG treatment