Treatment of higher risk Myelodysplastic Syndrome HR-MDS with high-dose chemotherapy followed by lenalidomide and azacitidine: a four-year survival update

Maher Salamoon MD, Al Bairouni university cancer center, Daffodil 88 comprehensive cancer center, Damascus university, Damascus, Syria

INTRODUCTION

Higher-risk myelodysplastic syndromes (MDS) are defined by patients who fall into higher-risk group categories in the original or revised International Prognostic Scoring System. Survival for these patients is dismal, and treatment should be initiated rapidly. Standard therapies include the hypomethylating agents azacitidine and decitabine. Patients in relapses refer to clinical trials.

AIM

Studying new protocol in low-income countries where drug shortage is the rule and employing a new drug is challenging

METHOD

We have included 20 patients diagnosed with very high risk MDS according to international prognostic scoring system (IPSS). most of them demonstrated a blast percentage between 12-20%, chromosomal abnormalities and generalized cytopenia with a histology oscillating between RAEB- 1 and RAEB- 2. We have offered our patients an induction chemotherapy including Cytarabine 3 grams every week for 8 consecutive weeks followed by azacitadine 75mg/m2 per day for 5 consecutive days of 28-day cycle concomitant with lenalidomide 10 mg per day continuously. Treatment to be continued if there is a response with an acceptable toxicity. Bone marrow aspiration performed at the end of induction and every 3 months thereafter..

CONCLUSIONS

The combination of induction chemotherapy followed by hypomethylating agents plus immunomodulators seems to be a good choice in low income countries in treatment of higher risk MDS patients

RESULTS

A complete response was documented in 5 out of 20 patients (25%) at the end of induction and 15 patients (75%) partial responders. 3 months after the start of the second block, another 3 patients joined the complete responders (40%). Progression free survival at 4 years was 46% (95% CI: 41.2-48.9) and an overall survival at 4 years was 62% (95% CI: 58.1-66,2). the percentage of admission to intensive care unit following neutropenia was 8%. Neutropenia of grades 3 and 4 documented in 15% of patients mainly in the induction setting. After induction, patients were living a good quality of life.

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CONTACT INFORMATION

maher salamoon MD

maher.salamoon@gmail.com

+963933771086

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