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616.ACUTE MYELOID LEUKEMIAS: INVESTIGATIONAL THERAPIES, EXCLUDING TRANSPLANTATION AND CELLULAR IMMUNOTHERAPIES

Low-Dose IA with Venetoclax Regimen As Induction Therapy for Newly Diagnosed Acute Myeloid Leukemia

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Abstract

Background: The IA regimen (combination of idarubicin and cytarabine) is used as the most common induction of remission therapy for acute myeloid leukemia, with the complete response (CR) rates of up to 70%. Addition of the BCL-2 inhibitor venetoclax(Ven) to chemotherapy can increase apoptosis priming. In order to further improve the remission rate and prolong survival, our center uses a low-dose IA regimen combined with Venetoclax to treat newly diagnosed primary acute myeloid leukemia under 60 years old.

Methods: We retrospectively analyzed 15 patients with newly diagnosed AML, who was under 60 years old. Patients received idarubicin (6mg/m2 IV for 3-days) and cytarabine (60mg/m2 IV for 5-days) with oral venetoclax (400mg daily for 2 weeks) for induction, followed by the same chemo-free regimen for consolidation if patients responded to induction therapy. And then analyze the effects of this regimen on complete remission (CR) rate, minimal residual disease (MRD) negative CR rate, relapse-free survival (RFS), overall survival (OS), and adverse events.

Findings: Between January, 2021 and June, 2023, 15 patients were treated with this regimen. The median age was 43 years (IQR, 36-43) and the median follow-up was 4.25 (IQR, 2.73-15.6) months. Among all patients, the ORR was 86.7% (95% CI 62, 96), the CR rate was 80.0% (95% CI 55, 93), and the MRD negative rate was 66.7% (95% CI 42, 85). According to 2022 ELN risk classification by genetics, the ORR in favorable risk patients were 50.0% (1/2), intermediate risk patients were 100% (7/7), adverse risk patients were 83.3%(5/6). Those who had epigenetic modification mutations (NPM1, FLT3-ITD, CEBPA) were more likely to benefit from this regimen. The most common grade 3 and 4 adverse reactions were neutropenia, thrombocytopenia, and anemia.

Conclusion: As induction and consolidation therapy whose adverse reactions were tolerable, the low-dose IA with Venetoclax regimen produces deep remission for the patients with newly diagnosed primary AML.

Disclosures No relevant conflicts of interest to declare.

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