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(S137) VENETOCLAX-HMA AS A BRIDGE TOWARDS HSCT OR DLI IN R/R AML: A RETROSPECTIVE ANALYSIS IN 20 HOSPITALS ACROSS THE NETHERLANDS

Topic: 4. Acute myeloid leukemia - Clinical

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Background:

Patients diagnosed with relapsed or refractory acute myeloid leukemia (R/R AML) face a poor prognosis, with a 3-year survival of less than 10%. The only potentially curative treatment is an allogeneic hematopoietic stem cell transplantation (HSCT) or a donor lymphocyte infusion (DLI) for patients relapsing after HSCT, preferably performed after achieving remission. High dose chemotherapy is commonly used as reinduction treatment but hypomethylating agents combined with venetoclax (VEN-HMA) have gained attention due to the excellent effects in patients with newly diagnosed AML who are ineligible for intensive chemotherapy. However, if this treatment is a valuable option in the setting of R/R AML and whether it can be used as an effective bridge to consolidation, remains largely uncertain.

Aims:

This study aims to gain insight into the response and outcome of patients with R/R AML who were treated with VEN-HMA in the Netherlands. Our primary research question was to determine if VEN-HMA could serve as an effective bridge to transplant or DLI. To our knowledge, this retrospective study is one of the largest R/R AML cohorts of patients treated with VEN-HMA.

Methods:

In this retrospective multicenter study, we analyzed data from 146 R/R AML patients who received VEN-HMA treatment across 20 hospitals in The Netherlands between February 2019 and September 2023. Azacitidine or decitabine was administered in combination with venetoclax. Patients were evaluated for efficacy endpoints including best response, percentage of patients achieving consolidation and survival outcomes. Moreover, we explored predictive factors influencing treatment response.

Results:

Of the 146 patients treated with VEN-HMA, 32 % achieved a composite complete response (CR/CRh/CRi) and 13%

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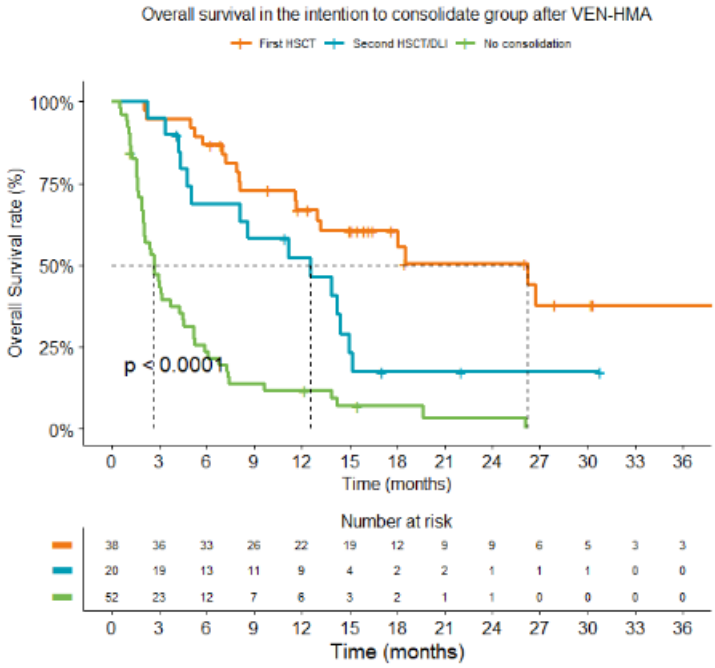
achieved Morphologic Leukemia-Free State (MLFS). Thirty-one percent of the patients had refractory disease and 24% were non-evaluable for response. For 111 patients, VEN-HMA was initiated with the intention to consolidate (ITC) with a HSCT/DLI. In 35 patients life extension was the primary goal.

In the ITC group, 39% and 16% achieved CRc and MLFS, respectively. Twenty-eight percent were refractory, and 17% were non-evaluable for response. Of the patients in the ITC group, 53% were successfully bridged towards HSCT/DLI. The median overall survival (mOS) for the entire cohort was 5.2 months (95% CI, 4.5–7.9). In the group reaching consolidation, mOS extended to 14.4 months. Notably, patients undergoing their first HSCT had a superior mOS compared to those bridged to a second HSCT/DLI (26.2 vs. 12.6 months, p<0.0001). The mOS was only 2.7 months (95% CI, 2.0–4.5) in patients who did not reach consolidation. In the univariate analysis with response to VEN-HMA as endpoint, IDH2 positivity emerged as a predictor for a more favorable outcome, while HMA pretreatment and RUNX1 were associated with poorer outcomes with a trend towards significance (p<0.1). None of these factors was significant in multivariate analysis.

Summary/Conclusion:

This retrospective multicenter study suggests that VEN-HMA can serve as a bridge to consolidation for more than 50% of R/R AML patients in our cohort resulting in a mOS of 14.4 months.



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