OUTCOMES IN ACUTE MYELOID LEUKEMIA WITH *MECOM*-REARRANGEMENT TREATED WITH HYPOMETHYLATING AGENT PLUS VENETOCLAX

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Introduction

- *MECOM*-rearranged acute myeloid leukemia (*MECOM*r AML) is associated with chemotherapeutic resistance and poor survival
- Clinical outcomes in the era of hypomethylating agent plus venetoclax (HMA+ven) are not well defined.

Aim

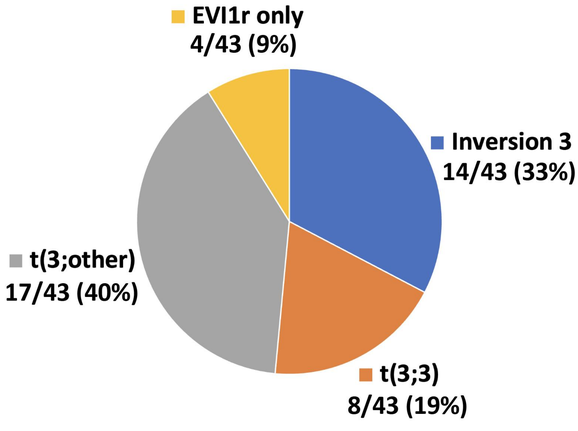
- To characterize clinical outcomes with HMA+ven in *MECOM*r AML

Methods

- Analyzed 43 patients with newly diagnosed (1L) or relapsed/refractory (R/R) *MECOM*r-AML from Memorial Sloan Kettering Cancer Center treated with HMA+ven.

Results

Patient and disease characteristics	Overall N=43	1L N=22 (51%)	R/R N=21 (49%)
Median age (range)	65 (20-84)	70 (34-79)	56 (20-84)
Prior myeloid malignancy, N (%)	3 / 43 (7)	2 / 22 (9)	1 / 21 (5)
Therapy-related, N (%)	16 (37)	11 / 22 (50)	5 / 21 (24)

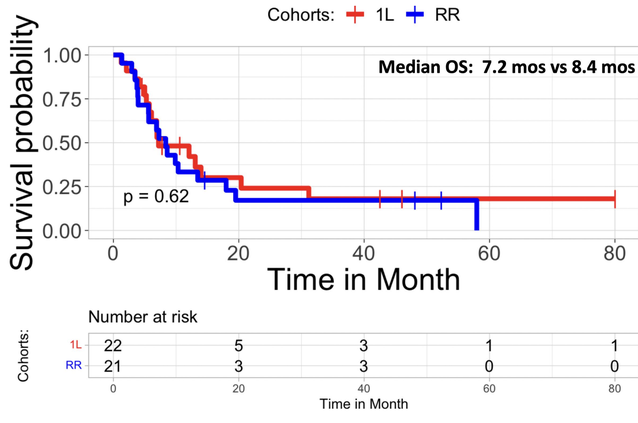


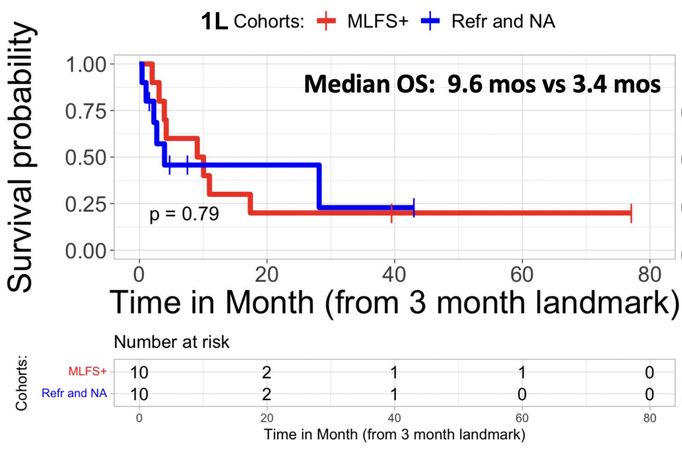
Results, continued

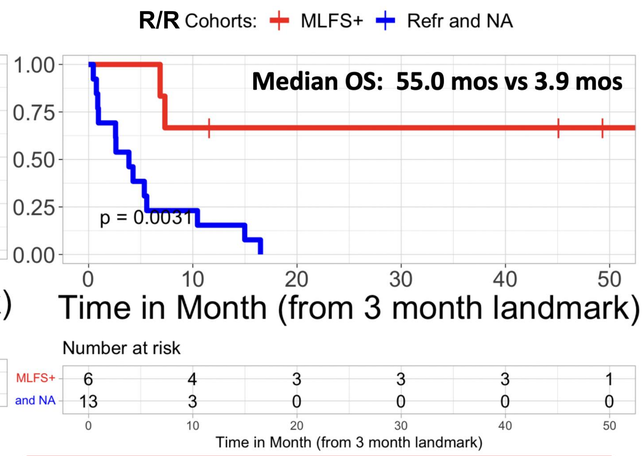
Concomitant cytogenetic and molecular abnormalities	N (%)
Complex karyotype	18 / 43 (42)
-7	16 / 43 (37)
Del7q	6 / 43 (14)
-5/del5q	10 / 43 (23)
Del17	4 / 43 (9)
DNMT3A	4 / 38 (11)
GATA2	4 / 38 (11)
NF1	6 / 38 (16)
NRAS	4 / 38 (11)
PTPN11	8 / 38 (21)
RUNX1	5 / 38 (13)
SF3B1	11 / 38 (29)
TP53	10 / 38 (26)

- Cytogenetic and molecular abnormalities comparable between 1L and RR with the exception of TP53: 8/18 (44%) vs 2/20 (10%), p=0.027

	Overall N=43	1L N=22 (51%)	R/R N=21 (49%)
Treatment characteristics			
Azacitidine, N (%)	32 / 43 (74)	16 / 22 (73)	16 / 21 (76)
Decitabine, N (%)	11 / 43 (26)	6 / 22 (27)	5 / 21 (24)
Number of cycles, median (range)	2 (1-12)	2 (1-12)	2 (1-7)
Clinical outcome, N (%)			
CR/CRi/CRh	14 / 43 (33)	8 / 22 (36)	6 / 21 (29)
MLFS	6 / 43 (14)	4 / 22 (18)	2 / 21 (10)
ORR (CR+CRi+CRh+MLFS)	20 / 43 (47)	12 / 22 (55)	8 / 21 (38)
Refractory	20 / 43 (47)	8 / 22 (36)	12 / 21 (57)
Not evaluable	3 / 43 (7)	2 / 22 (14)	1 / 21 (5)
MRD negativity	5 / 43 (12)	3 / 22 (9)	2 / 21 (10)
Proceeded to transplant	12 / 43 (28)	7 / 22 (32)	5 / 21 (24)







Discussion

- *MECOM*r-AML treated with HMA+ven is associated with poor prognosis
- Responders have a trend toward improved mOS

References

- Luthgart et al, Clinical, Molecular, and Prognostic Significance of WHO Type inv(3)(q21q26.2)/t(3;3)(q21;q26.2) and Various Other 3q Abnormalities in Acute Myeloid Leukemia, Journal of Clinical Oncology 2010
- Richard-Carpentier et al, Characteristics and clinical outcomes of patients with acute myeloid leukemia with inv(3)(q21q26.2) or t(3;3)(q21;q26.2), Haematologica 2023