

INTRODUCTION

- CMML is a clonal myeloid neoplasm with overlapping myelodysplastic and myeloproliferative features, characterized by monocytosis, cytopenias, Venous Thromboembolism (VTE), and risk of AML progression.
- GLP-1 agonists (GLP-1a), primarily used for glycemic control, have shown preclinical antineoplastic and anti-inflammatory effects.
- Proposed mechanisms include inhibition of **PI3K/AKT/mTOR** and **ERK/MAPK** signaling, suppression of NF-κB/NLRP3 pathways, and reduction of oxidative stress.
- We evaluated the association between GLP-1a therapy and major clinical outcomes in a large

METHOD

- Retrospective cohort study using the TriNetX Global Collaborative Network (2010–2023).
- Compared CMML patients receiving GLP-1 agonists with those without GLP-1a exposure.
- 1:1 propensity score matching balanced 48 demographic, clinical, treatment, medication, and laboratory variables.
- Outcomes were assessed over 3 years and included mortality, AML, VTE, hospitalization, ICU admission, anemia, and thrombocytopenia.

CONCLUSIONS

- GLP-1 agonist use in CMML was associated with lower **ALL–cause mortality, AML progression, VTE, healthcare utilization, anemia, and thrombocytopenia**.
- These findings are promising but **noncausal**; prospective randomized trials are needed for confirmation

After Propensity Score Matching		
Characteristic	GLP-1a (n=698)	No GLP-1a (n=698)
DEMOGRAPHICS		
Current age, mean ± SD	66.6 ± 12.1	66.7 ± 18.6
Age at index, mean ± SD	62.0 ± 11.9	62.0 ± 19.2
Female, n (%)	357 (51.1%)	357 (51.1%)
Male, n (%)	341 (48.9%)	341 (48.9%)
White, n (%)	517 (74.1%)	494 (70.8%)
African American, n (%)	88 (12.6%)	102 (14.6%)
Hispanic/Latino, n (%)	40 (5.7%)	43 (6.2%)
Asian, n (%)	22 (3.2%)	22 (3.2%)
AIAN, n (%)	10 (1.4%)	10 (1.4%)
Native Hawaiian, n (%)	10 (1.4%)	10 (1.4%)
COMORBIDITIES		
Hypertension, n (%)	516 (73.9%)	513 (73.5%)
Cardiomyopathy, n (%)	63 (9.0%)	68 (9.7%)
Lipid disorders, n (%)	478 (68.5%)	467 (66.9%)
Ischemic heart disease, n (%)	249 (35.7%)	258 (37.0%)
MEDICATIONS / THERAPY		
Antilipemic agents, n (%)	427 (61.2%)	426 (61.0%)
Insulin, n (%)	316 (45.3%)	328 (47.0%)
Aspirin, n (%)	312 (44.7%)	311 (44.6%)
Eltrombopag, n (%)	10 (1.4%)	10 (1.4%)
Filgrastim, n (%)	41 (5.9%)	41 (5.9%)
Pegfilgrastim, n (%)	25 (3.6%)	22 (3.2%)
Fludarabine, n (%)	18 (2.6%)	21 (3.0%)
Hydroxyurea, n (%)	70 (10.0%)	76 (10.9%)
Azacitidine, n (%)	12 (1.7%)	16 (2.3%)
Decitabine, n (%)	10 (1.4%)	10 (1.4%)
LABORATORY VALUES		
LDL cholesterol, mean ± SD, mg/dL	86.8 ± 40.6	84.1 ± 37.7
Hemoglobin A1c, mean ± SD, %	7.3 ± 1.9	6.6 ± 1.5

RESULTS

