

Efficacy and toxicity of venetoclax and obinutuzumab in the first-line CLL patients with comorbidities: analysis of real-world data from the Polish Adult Leukemia Group (PALG) centers

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OBJECTIVES

- to analyze the efficacy and toxicity of Ven-Obi in a real-world population of comorbid patients treated outside clinical trials.

CONCLUSIONS

- The combination of Ven-Obi in de novo CLL is an effective and generally well-tolerated first-line therapy in CLL patients with significant comorbidities under real-world conditions.
- TP53 aberrations did not affect early treatment outcomes.
- Longer follow-up is mandatory.



INTRODUCTION

- Venetoclax combined with obinutuzumab (Ven-Obi) is considered the standard of care for patients with treatment-naïve (TN) chronic lymphocytic leukemia (CLL) and comorbid conditions based on the results of CLL14 phase 3 clinical trial.
- in all clinical trials, the inclusion and exclusion criteria could be a source of selection bias, which is particularly important when interpreting the results in an older and burdened patient population. Therefore, there is a need for the results of this study to be confirmed by analysis of real-life data.

METHODS

- This was a retrospective analysis of adult patients with TN CLL and comorbid conditions in routine medical practice in Poland between November 2021 and August 2024.
- Eligibility criteria:
 - the diagnosis of CLL with indications to start treatment according to the iwCLL guidelines;
 - ECOG performance status ≤ 2 ;
 - the presence of comorbidities defined as a CIRS total score of > 6 and/or creatinine clearance (CrCl) > 30 mL/min and < 70 mL/min.
- The study was conducted in accordance with the Declaration of Helsinki and was approved by the local Bioethics Committee (Approval ID: AKBE/66/2025).
- A log-rank test was used for group comparison. Fisher exact test and chi-square test were used for the univariate analysis. Due to small number of events, multivariate analysis was not performed.

RESULTS

Table 1. Baseline patients characteristic.

| | All | With TP53 aberration |
|-----------------------------------------|------------------|----------------------|
| N | 220 | 19 |
| Age, median (range), years | 70 (45-86) | 72 (50-85) |
| Age ≥ 75 years, n (%) | 56 (25.5%) | 6 (31.6%) |
| ECOG, median, (range) | 1 (0-3) | 1 (0-2) |
| Sex, Male, n (%) | 134 (60.9%) | 7 (36.8%) |
| Binet stage, n (%) | | |
| A | 30 (14.8%) | 2 (10.5%) |
| B | 71 (35%) | 3 (15.8%) |
| C | 102 (50%) | 14 (73.7%) |
| Missing | 17 | - |
| Low | 8 (3.7%) | 0 |
| Intermediate | 98 (45%) | 5 (26.3%) |
| High | 112 (51.4%) | 14 (73.7%) |
| Missing | 2 | - |
| Low | 35 (16.1%) | 2 (10.5%) |
| Intermediate | 112 (51.6%) | 11 (57.9%) |
| High | 70 (32.3%) | 6 (31.6%) |
| Missing | 3 | - |
| CIRS score > 6 , n (%) | 185 (84.1%) | 12 (63.2%) |
| CIRS score, median (range) | 8 (0-30) | 7 (0-13) |
| Calculated CrCl < 70 ml/min, n (%) | 106 (48.2%) | 18 (%) |
| Bulky disease (> 5 cm), n (%) | 49 (22.3%) | 4 (21.1%) |
| Del(17p) | 18 (9.5%) | 18 (94.8%) |
| Not evaluated | 30 | 1 |
| Del(11q) | 28 (21.2%) | 7 (36.8%) |
| Not evaluated | 88 | 12 |
| Tri(12) | 11 (12.8%) | 1/8 (12.5%) |
| Not evaluated | 134 | 11 |
| Del(13q) | 43 (43.4%) | 5/11 (45.5%) |
| Not evaluated | 121 | 8 |
| TP53 mutational status, n (%) | | |
| Mutated | 2 (2%) | 2 |
| Unmutated | 99 (98%) | 1 |
| Not evaluated | 119 | 0 |
| Mutated | 37 (72.5%) | - |
| IgHV mutational status | | |
| Unmutated | 14 (27.5%) | 2 (100%) |
| Not evaluated | 169 | 17 |
| Median follow-up time, (95% CI), months | 25.9 (24.5-27.9) | 26.2 (22.9-31) |

Figure 1. A The estimated two-year overall survival (OS) and progression-free survival (PFS) of patients (n=220). B Overall response rate (ORR) after treatment completion in evaluable patients was 97.4% (n=199).

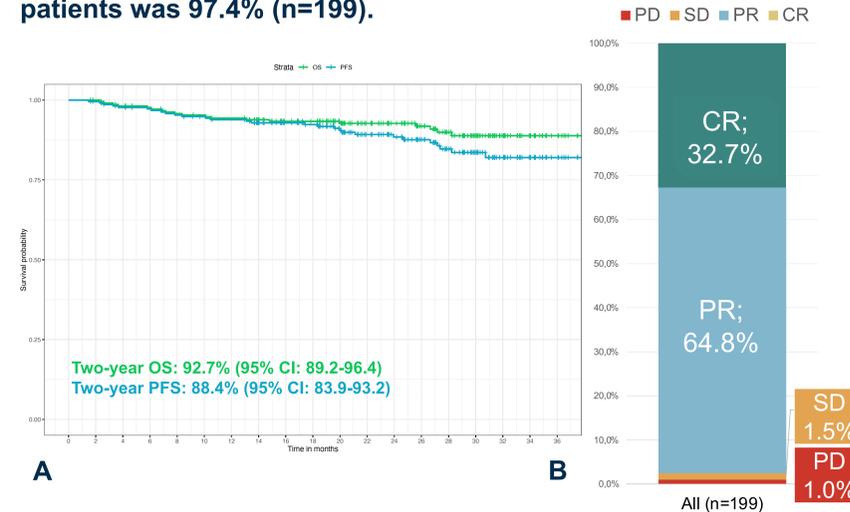


Figure 2. Two-year PFS (A) and OS (B) with patients with CIRS>6 (blue curve) vs CIRS ≤ 6 (yellow curve)

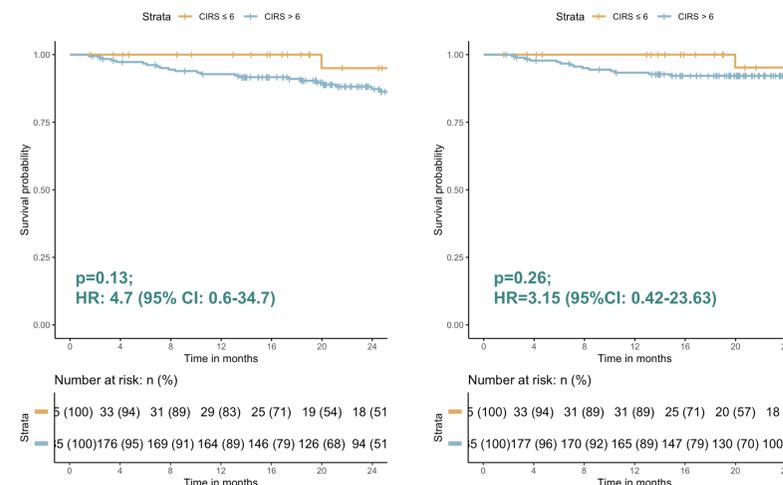


Figure 3. Two-year PFS (A) and OS (B) with patients without TP53 gene aberrations (yellow curve) vs with (blue curve).

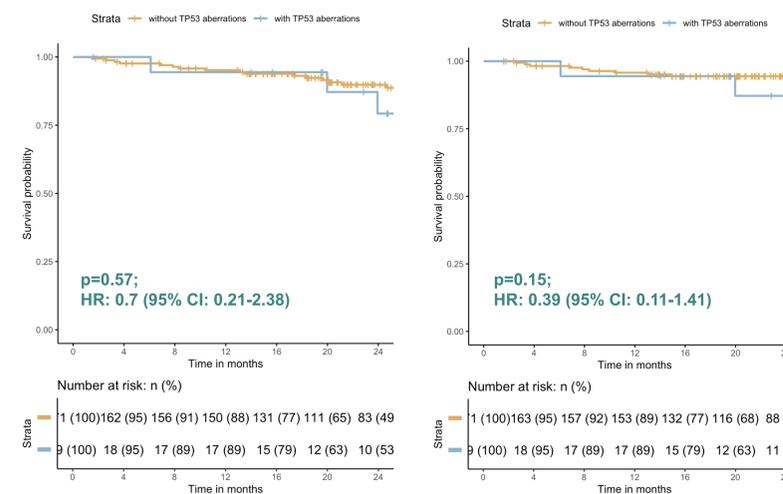


Table 2. The results of univariate analysis of potential influence of baseline prognostic factors on the PFS and OS.

| | PFS | | | OS | | |
|-----------------------------------------------------------|------|-----------|------|------|----------------|------|
| | HR | 95% CI | p | HR | 95% CI | p |
| Binet | | | | | | |
| A | | | 0.84 | - | - | 0.54 |
| B | 1.07 | 0.35-3.29 | 0.91 | 1.57 | 0.48-5.1 | 0.45 |
| C | 0.79 | 0.33-1.92 | 0.61 | 0.75 | 0.3-2.22 | 0.6 |
| Rai stage at diagnosis 3-4 vs 0-2 | 1.02 | 0.49-2.14 | 0.96 | 1.1 | 0.49-2.72 | 0.8 |
| Male sex vs female | 2.08 | 0.88-4.88 | 0.1 | 1.89 | 0.68-5.25 | 0.22 |
| Age (as a continuous variable) | 1.00 | 0.99-1.02 | 0.68 | 1 | 0.98-1.03 | 0.7 |
| TP53 aberrations vs without | 0.70 | 0.21-2.38 | 0.57 | 0.39 | 0.11-1.41 | 0.15 |
| CIRS > 6 vs ≤ 6 | 4.71 | 0.64-34.7 | 0.19 | 3.15 | 0.42-23.63 | 0.26 |
| 0 | - | - | 0.44 | - | - | 0.29 |
| 1 | 1.13 | - | 0.82 | 2.09 | 0.45-9.65 | 0.35 |
| 2 | 2.12 | 0.4-3.2 | 0.18 | 4.15 | 0.86-19.97 | 0.08 |
| 3 | 0.00 | 0.71-6.33 | 0.99 | 0.00 | 0.00-nr | 0.99 |
| Lymph nodes > 5 cm vs ≤ 5 | 0.84 | 0.32-2.21 | 0.73 | 1.03 | 0.34-3.1 | 0.96 |
| PLT count $< 30 \times 10^9/L$ vs $\geq 30 \times 10^9/L$ | 1.08 | 0.15-7.94 | 0.94 | 0.05 | 0.03-11.62 | 0.59 |
| Hb concentration < 9 g/dL vs > 9 g/dL | 1.01 | 0.41-2.49 | 0.99 | 0.95 | 0.32-2.87 | 0.93 |
| CrCl < 70 ml/min vs ≥ 70 ml/min | 1.36 | 0.65-2.85 | 0.42 | 1.99 | 0.78-5.05 | 0.15 |
| Presence of del(11) vs without | 1.84 | 0.42-8.11 | 0.42 | 2.97 | 0.38-23.03 | 0.3 |
| Presence of tri(12) vs without | 1.39 | 0.18-10.8 | 0.75 | 24.2 | 0.00-132895.05 | 0.47 |
| Presence of del(13) vs without | 1.1 | 0.38-3.16 | 0.87 | 0.98 | 0.30-3.22 | 0.98 |

Table 3. Reported adverse events during Ven-Obi therapy.

| Adverse events | Any | Grade 3 or 4 |
|--------------------------------------------|---------------|--------------|
| Blood and lymphoid system disorders, n (%) | | |
| Neutropenia | 183 (83.2%) | 118 (53.6%) |
| Thrombocytopenia | 126 (57.3%) | 48 (21.8%) |
| Anemia | 120 (54.5%) | 31 (14.1%) |
| Febrile neutropenia | 22 (10%) | Nd |
| Infections, n (%) | | |
| Upper respiratory tract infections | 17 (7.7%) | 0 |
| Pneumonia (other than COVID-19) | 18 (8.6%) | 8 (3.6%) |
| COVID-19 hospitalization | 26 (11.8%) | Nd |
| SARS-CoV-2 pneumonia | 11/26 (42.3%) | Nd |
| SARS-CoV-2 pneumonia | 14 (6.4%) | Nd |
| TLS, n (%) | | |
| Biochemical | 43 (19.5%) | Nd |
| Clinical | 8 (3.6%) | - |
| ALHA, n (%) | 9 (4.1%) | - |
| ITP, n (%) | 6 (2.7%) | - |
| Diarrhea, n (%) | 15 (6.8%) | 8 (3.6%) |
| Liver toxicity, n (%) | 4 (1.8%) | 3 (1.4%) |
| ALT | 14 (6.4%) | 5 (2.3%) |
| AST | 16 (7.3%) | 2 (0.9%) |
| ALP | 9 (4.1%) | 1 (0.5%) |
| GGTP | 5 (2.3%) | 1 (0.5%) |
| Cardiac disorders, n (%) | | |
| Atrial fibrillation | 3 (1.4%) | - |
| Acute coronary syndrome | 1 (0.5%) | 1 (0.5%) |
| Increased bilirubin concentration, n (%) | 5 (2.3%) | 0 |
| Cutaneous toxicity, n (%) | 6 (2.7%) | Nd |
| Obinutuzumab IRR, n (%) | 21 (9.5%) | 5 (2.3%) |
| Secondary malignancy, n (%) | 5 (2.3%) | 5 (2.3%) |
| Fever, n (%) | 5 (2.3%) | Nd |
| Peripheral oedema, n (%) | 3 (1.4%) | Nd |
| Central nervous system disorder, n (%) | 2 (0.9%) | Nd |

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