CALGB 10403 in Latin America: A Single-Center Study with Extended Follow-Up

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INTRODUCTION & AIM

CALGB 10403 demonstrated that a pediatric-inspired regimen is feasible in adolescents and young adults with B-cell acute lymphoblastic leukemia (B-ALL), with a 2-year OS of ~70% (*Stock W, 2019)*. Follow-up data from Latin American centers remain scarce. We report updated outcomes of a single-center cohort treated with C10403.

METHODS

- We retrospectively analyzed **126 patients with Ph-negative ALL** treated with **C10403** at a single institution in Mexico from 2017-2026.
- Starting in 2025, two consolidation cycles of **blinatumomab** were added; prior to 2025, blinatumomab was administered based on MRD positivity (≥0.1%) and availability.
- Overall survival (OS), event-free survival (EFS), relapse-free survival (RFS), and treatment-related mortality (TRM) were estimated by Kaplan-Meier. Prognostic factors were evaluated by multivariable Cox regression.

CONCLUSIONS

- CALGB 10403 is feasible and yields outcomes comparable to the original trial in a Latin American center with extended follow-up.
- MRD and leukocyte count are strong independent prognostic factors.
- Blinatumomab consolidation was independently associated with improved survival; mature outcomes of this unselected cohort are anticipated in the coming years.

RESULTS

- Median age was 27 years (IQR 21–38); 56% were male. Median follow-up was 31 months (range 1–109.1). Overall CR rate was 99%. Blinatumomab was received by 42 patients (34%).
- At 24 months, **OS was 64.8%** (95%CI 55.9–75.0%), **EFS 59.0%** (50.1–69.5%), and **RFS 70.0%** (61.0–80.4%). TRM at 24 months was 12.9%.
- Post-induction MRD was evaluable in 117 patients (93%); 46 (39%) were MRD-positive. **MRD positivity was associated with significantly inferior OS** (50.9% vs 79.7% at 24m, p=0.0009) and EFS (50.0% vs 69.7%, p=0.004).
- Leukocyte count ≥30×10³/μL was also associated with worse OS (37.5% vs 79.1% at 24m, p<0.001).
- On multivariable analysis, **leukocytes ≥30×10³/μL** (HR 2.61, 95%CI 1.30–5.27, p=0.007), **MRD positivity** (HR 3.50, 95%CI 1.66–7.37, p<0.001), and **blinatumomab** (HR 0.30, 95%CI 0.13–0.69, p=0.004) were **independently associated with OS**.