HEMATOLOGIC MALIGNANCY DIAGNOSED DURING PREGNANCY

A. BOLLA[1], F. SOTO-LANZA[1], R. ASSI[1]

1. Indiana University School of Medicine, Indianapolis, IN

INTRODUCTION

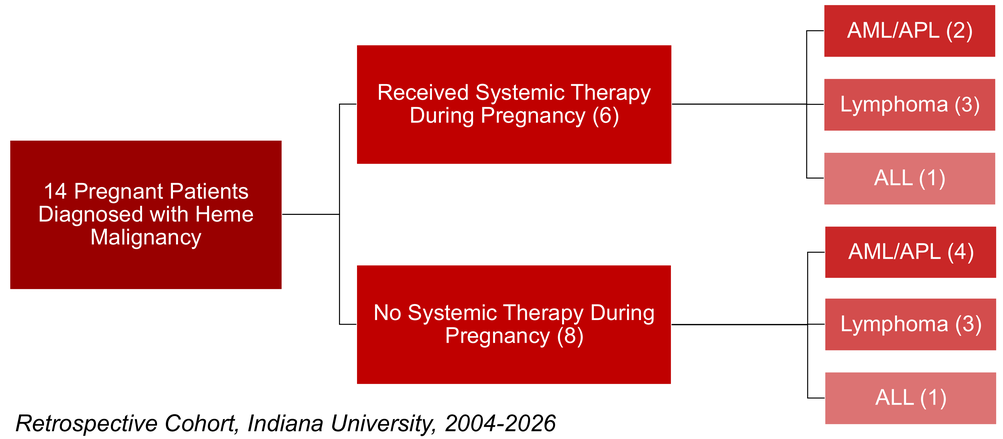
- **Hematologic malignancies diagnosed during pregnancy are rare, and evidence guiding treatment remains limited.**
- **Current guidance generally supports standard disease-directed therapy beyond the first trimester when clinically feasible.**
- **However, real-world data on treatment during pregnancy and associated maternal, pregnancy, and neonatal outcomes remain limited.**

AIM

To evaluate maternal, pregnancy, and neonatal outcomes in patients with hematologic malignancy diagnosed during pregnancy according to receipt of systemic therapy during ongoing pregnancy.

METHODS

- **Categorical variables were compared using Fisher's exact test.**
- **Continuous variables were compared using parametric or nonparametric testing.**
- **All analyses are considered exploratory given small sample size.**



Retrospective Cohort, Indiana University, 2004-2026

RESULTS

Figure 1. Gestational Age at Diagnosis

Table 1. Pregnancy Outcomes by Treatment Strategy

	Systemic Therapy (n=6)	No Systemic Therapy (n=8)	p-value
Live Birth	83.3%	12.5%	**0.026**
Pregnancy Termination	0.0%	62.5%	**0.075**
Miscarriage/Blighted Ovum	0.0%	25.0%	0.487

Table 2. Neonatal Outcomes by Treatment Strategy*

	Systemic Therapy (n=5)	No Systemic Therapy (n=1)	p-value
Preterm Birth	80.0%	100.0%	0.999
Congenital Anomalies	20.0%	0.0%	0.999
NICU Admission	20.0%	0.0%	0.999

**Among 6 live births*

ACKNOWLEDGEMENTS: Thank you to the patients whose courage and trust in us as they navigated a life-altering experience made this work possible.

Figure 2. Live Birth Rate by Treatment Strategy

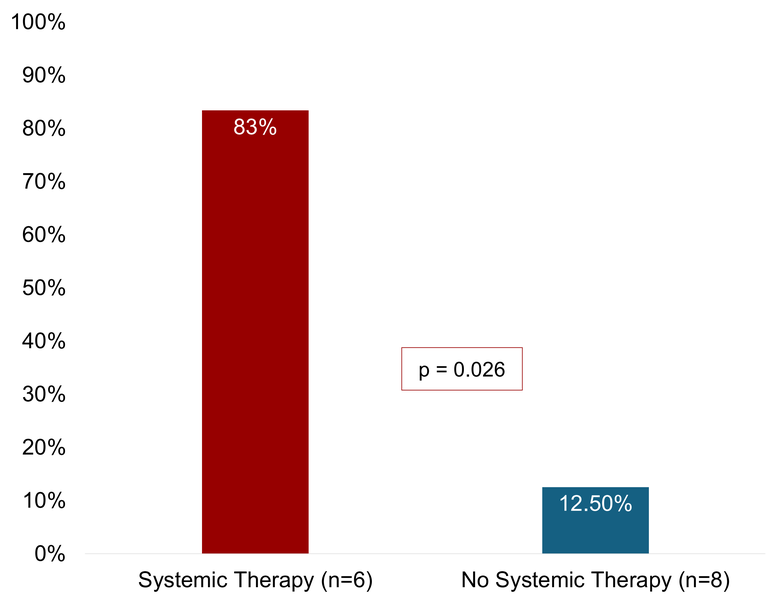


Table 3. Maternal Disease Outcomes By Treatment

	Systemic Therapy (n=6)	No Systemic Therapy (n=8)	p-value
Complete Remission	66.7%	100.0%	0.165
Relapse	33.3%	25.0%	0.999
Death During Follow Up	33.3%	50.0%	0.627

CONCLUSIONS

- Systemic therapy during pregnancy was associated with higher live birth rates and lower rates of pregnancy termination.
- No significant differences in maternal disease outcomes were observed.
- **This association should not be interpreted as treatment effect as patients treated during pregnancy were diagnosed later in gestation introducing significant selection bias.**
- Neonatal safety comparisons were limited by only 6 live births.
- **Gestational timing may be a key determinant of both treatment decisions and pregnancy presentation, which is being further investigated in an ongoing meta-analysis of AML in pregnancy.**

REFERENCES

1. Pinnix CC, Osborne EM, Chihara D, et al. Maternal and fetal outcomes after therapy for Hodgkin or non-Hodgkin lymphoma diagnosed during pregnancy. JAMA Oncol. 2016;2(8):1065-1069. doi:10.1001/jamaoncol.2016.1396.
2. de Haan J, Verheecke M, Van Calsteren K, et al. Oncological management and obstetric and neonatal outcomes for women diagnosed with cancer during pregnancy: a 20-year international cohort study of 1170 patients. Lancet Oncol. 2018;19(3):337-346. doi:10.1016/S1470-2045(18)30059-7.
3. Wang P, Yang Z, Shan M, et al. Maternal and fetal outcomes of acute leukemia in pregnancy: a retrospective study of 52 patients. Front Oncol. 2021;11:803994. Doi:10.3389/fonc.2021.803994.