

Proximal Placental Cord Insertions in Monochorionic Twins: Clinical Phenotypes and Pregnancy Trajectory

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Introduction

Characterize clinical trajectory and outcomes in MCDA twins with proximal placental cord insertions (pPCI), stratified by initial clinical phenotype.

Methods

- Single-center retrospective cohort of MCDA twin pregnancies diagnosed with pPCI, 2020–2025.
- pPCI defined as ≤ 4 cm between placental cord insertions on standardized prenatal ultrasound.
- Initial phenotype: abnormal UA Dopplers, growth abnormality (sFGR), amniotic fluid abnormality, discordant anomaly, or otherwise normal.
- Clinical trajectory was assessed among pregnancies continuing without termination or selective reduction.
- Trajectory: stable/improved, progression of growth and/or UA Dopplers, or demise.
- Outcomes: selective reduction, dual survival to discharge, and PCI-distance distribution across prognosis groups.

Cohorts at a glance

44

Pregnancies met inclusion criteria

24/31 (77.4%)

Dual survival to discharge among remaining pregnancies

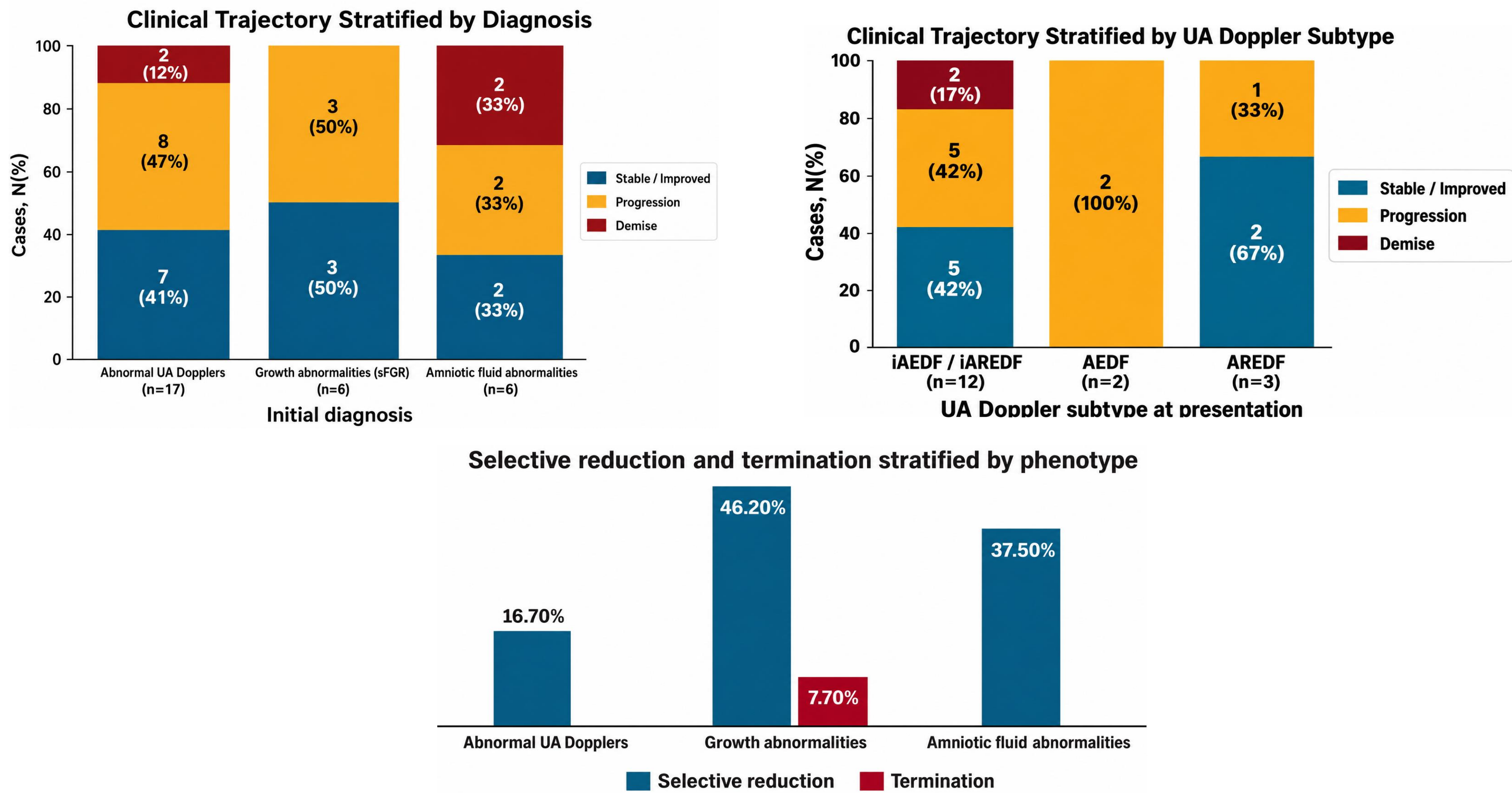
12 (27.3%)

Underwent selective reduction

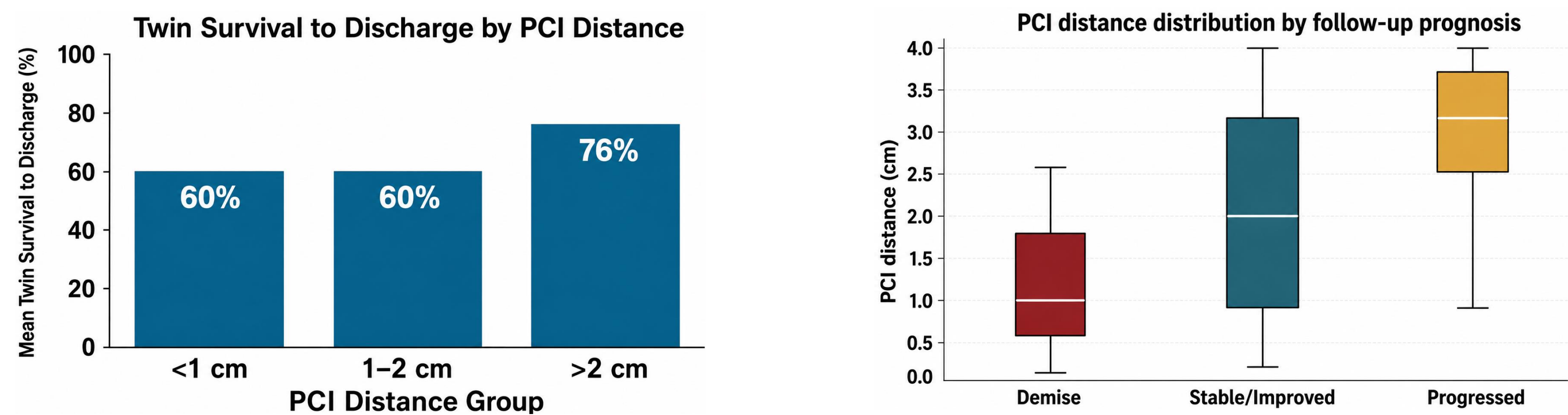
6/31 (19.4%)

No survivor to discharge

Phenotype-Specific Clinical Trajectory

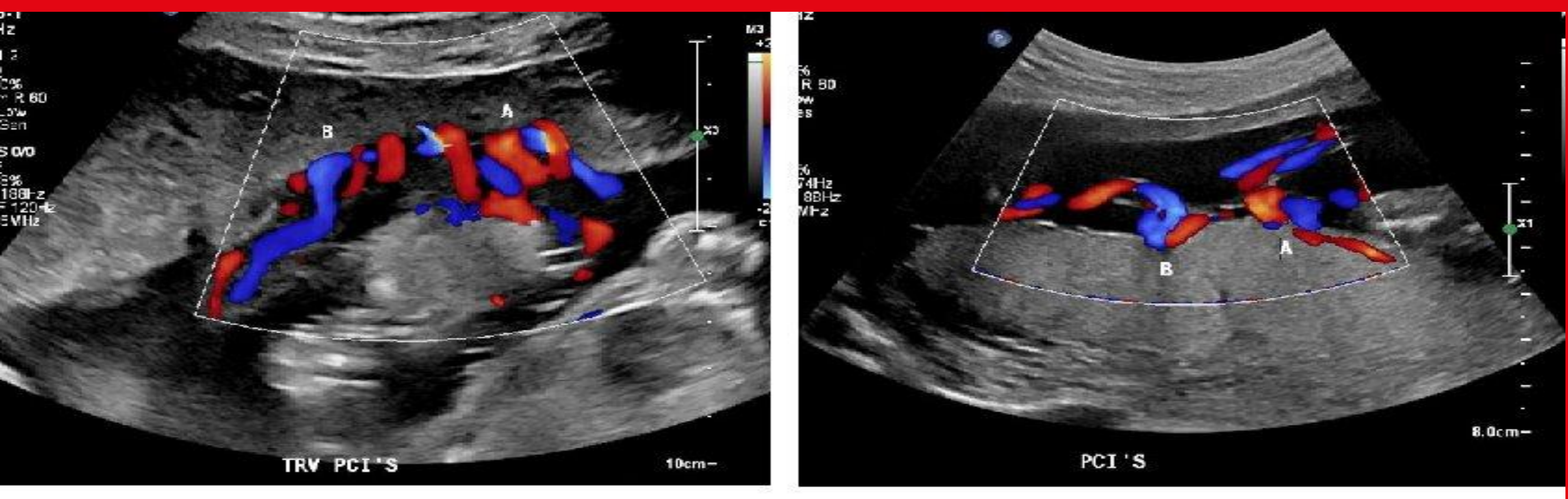


PCI distance and prognosis



Conclusion

- In MCDA twins with pPCI, risk is heterogeneous.
- Presenting phenotype, serial Doppler/growth trajectory, and PCI distance may provide complementary information for counseling and surveillance



FINDINGS

pPCI does not confer a uniform course.

Clinical course varies by initial phenotype and Doppler subtype.

- Initial phenotype and Doppler subtype help define risk, while PCI distance may add complementary prognostic information.
- Very short PCI distance appears associated with greater risk of demise, although distributions overlap.

Among evaluable pregnancies presenting with abnormal UA Dopplers, 47% progressed, 41% remained stable or improved, and 12% experienced demise.

- Interpret Doppler abnormality as a risk signal—not a deterministic outcome.