

EP 12.23: Outcome of twin reversed arterial perfusion sequence pregnancies depending on treatment modality: A systematic review and meta-analysis

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Objectives:

- To estimate the prevalence of live birth in pregnancies complicated by twin reversed arterial perfusion sequence (TRAP) according to different management strategies, including radiofrequency ablation (RFA), interstitial fetal laser (IFL), alcohol ablation (AA), and expectant management.

Methods:

- Literature search was conducted across PubMed, the Cochrane Library, and Embase to identify studies published up to February 2026
- Data were analyzed using a random-effects model, and heterogeneity was assessed using the I² statistic in R software.

Results

- 8 studies: 207 neonates, 28 RFA, 104 IFL, 5 AA, and 70 were managed expectantly.
- Prevalence of live birth was 89.3% (25/28) for RFA, 76.0% (79/104) for IFL, 60.0% (3/5) for AA, and 71.4% (50/70): Figure 1.

Conclusion

- RFA, IFL, and AA were associated with higher live birth rates compared with expectant management
- Mortality for this condition remains substantial
- The evidence is limited to small observational studies, and no randomized trials have been conducted
- Importance of multicenter prospective studies to better define optimal management and improve outcomes in TRAP pregnancies

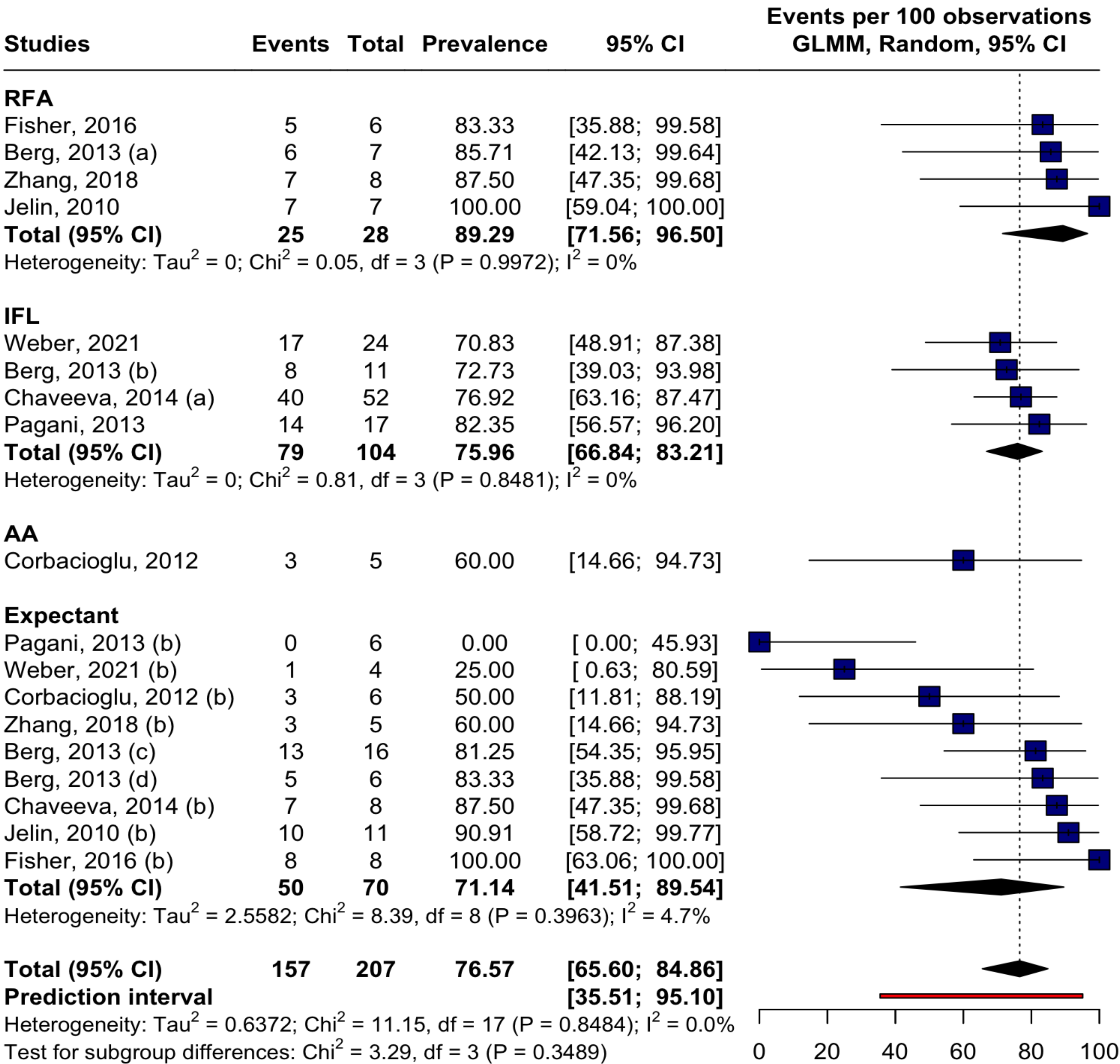


Figure 1. Forest plot for number of live births.