

Pregnancy Outcomes for Women with Large-For-Gestational-Age Fetuses- A Systematic Review and Meta-analysis

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OBJECTIVE

- Suspected Large-for-gestational-age (LGA) fetuses, defined as estimated foetal weight (EFW) or abdominal circumference > 90thpercentile are associated with adverse neonatal and maternal outcomes. However, there are no clear guidelines on the management of these pregnancies in non diabetic women.
- This systematic review and metanalysis is to evaluate the existing evidence on **non-diabetic pregnancies with suspected LGA** ,as identified by either Estimated fetal weight in antenatal ultrasound at 36-37 weeks >90thpercentile or estimated birth weight >90th percentile or 97th percentile or birth weight >95th percentile for the population and compare the maternal and neonatal outcomes between induction of labour (IOL) at 38 to 40 weeks and expectant management.

METHODS

A thorough literature search was performed using electronic databases, including PubMed, MEDLINE, EMBASE, Cochrane Library, Scopus, and ClinicalTrials .gov, from inception to 1 October 2024.

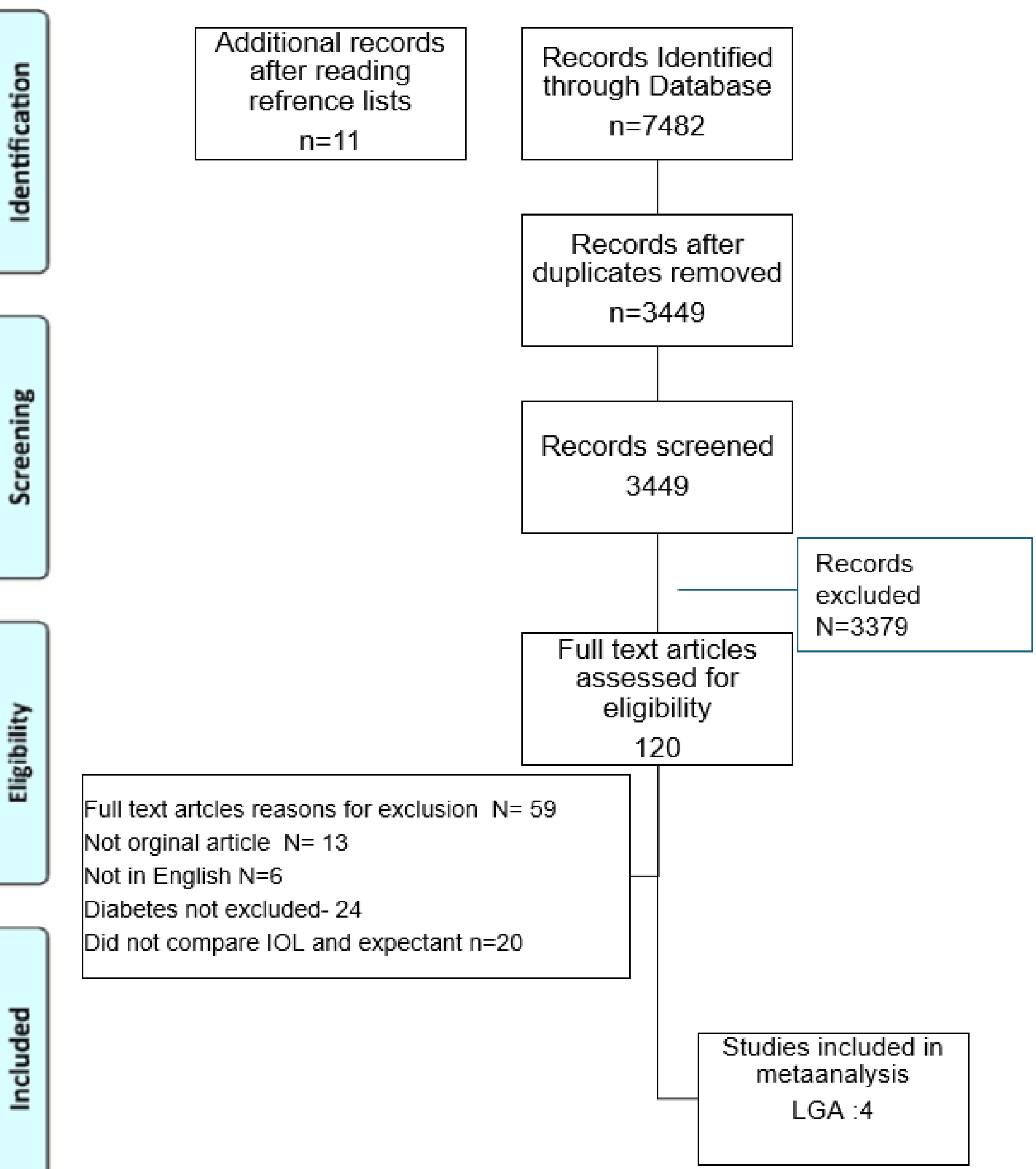
Randomized controlled trials and observational studies that assessed maternal and neonatal outcomes in non-diabetic pregnancies with suspected LGA fetuses, comparing IOL between 38 to 40 weeks and expectant management, were included. A random-effects meta-analysis was performed. The pooled risk ratio (RR) for each outcome was calculated, with 95% confidence intervals (CI). Statistical heterogeneity was assessed using the Cochran Q-test and I² statistic, with two-sided p-values. The study protocol was pre-registered on PROSPERO (CRD42024614984).

RESULTS

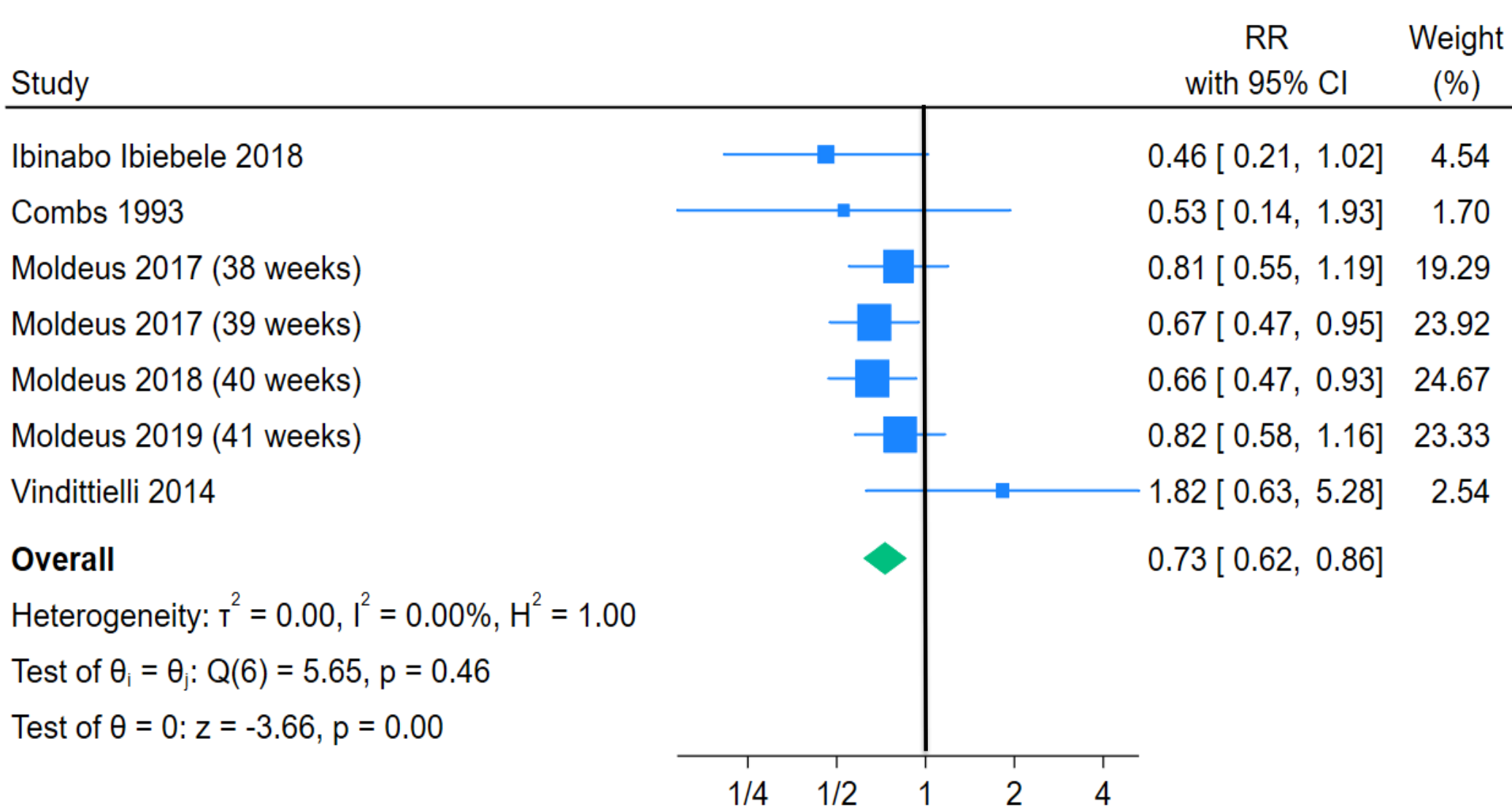
A total of 7482 articles were identified, with four studies meeting the inclusion criteria for final analysis. Compared with expectant management group, women with LGA-suspected fetus showed significant reduction in obstetric anal sphincter injury (OASIS) (RR 0.73;95% CI [0.62, 0.86]) There was no significant difference in caesarean section rates (RR 1.10;95% CI [0.80, 1.52]). Although our analysis showed reduction in shoulder dystocia (RR 0.66; 95% CI:[0.35, 1.24]),postpartum haemorrhage (RR 0.59; 95% CI[0.24, 1.44])these findings were not statistically significant. There was no difference in neonatal outcomes such as 5-minute Apgar score <7 and morbidity .

RESULTS

Flow Chart

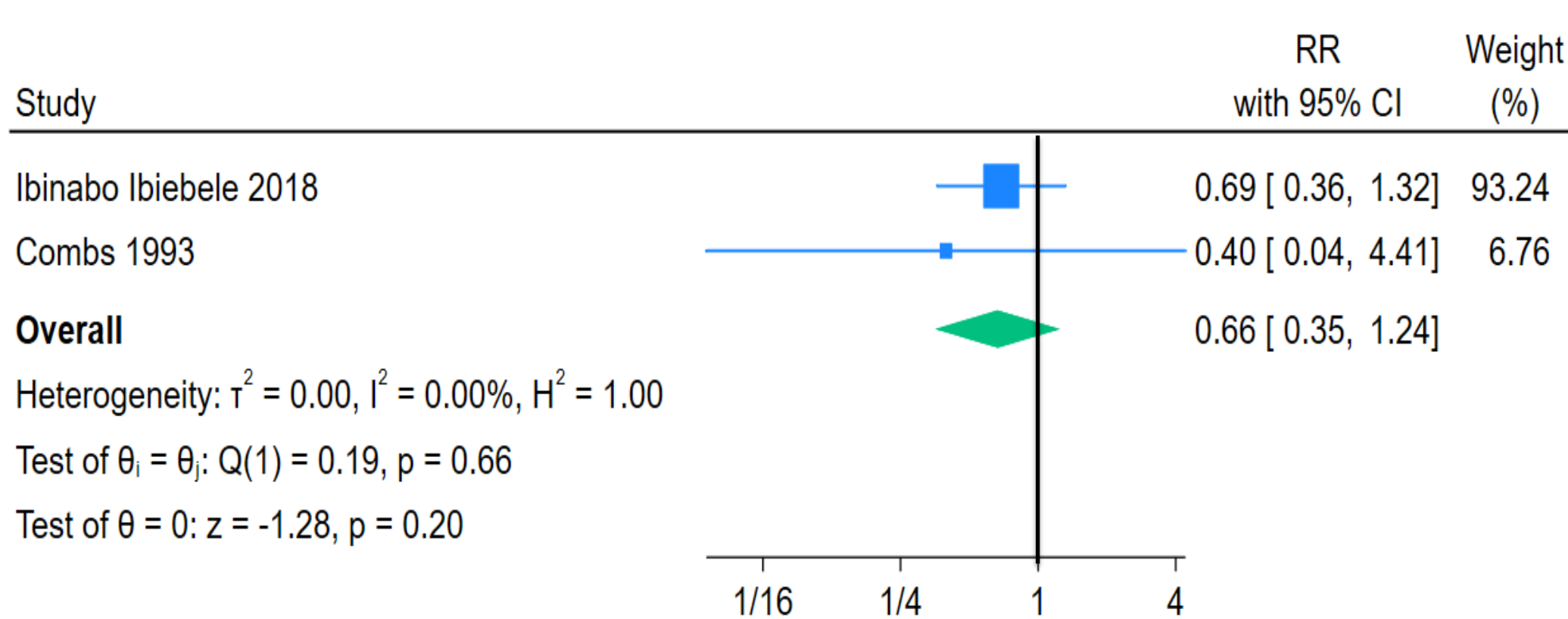


OASIS (obstetric anal sphincter injury)



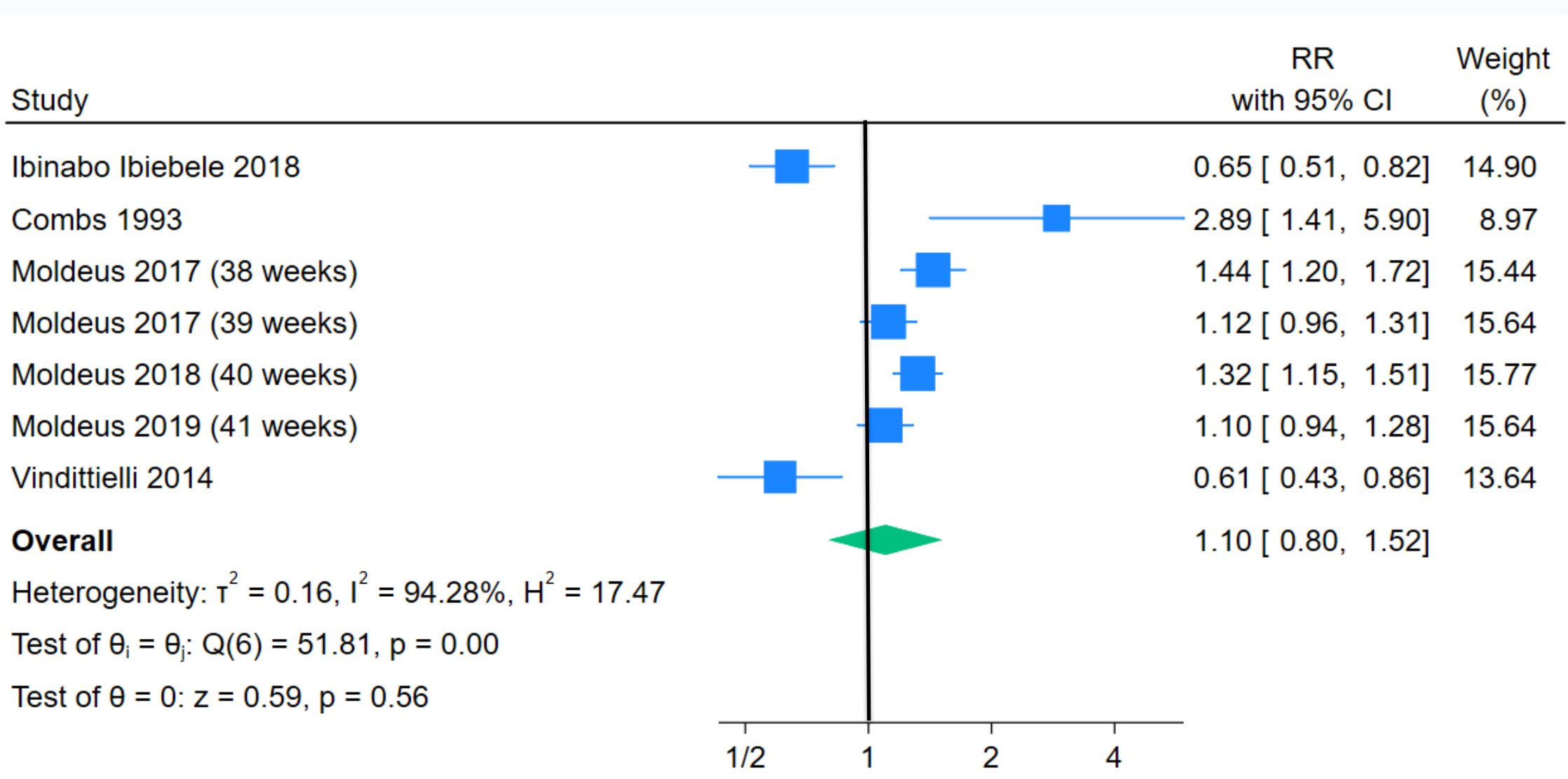
Random-effects REML model

SHOULDER DYSTOCIA



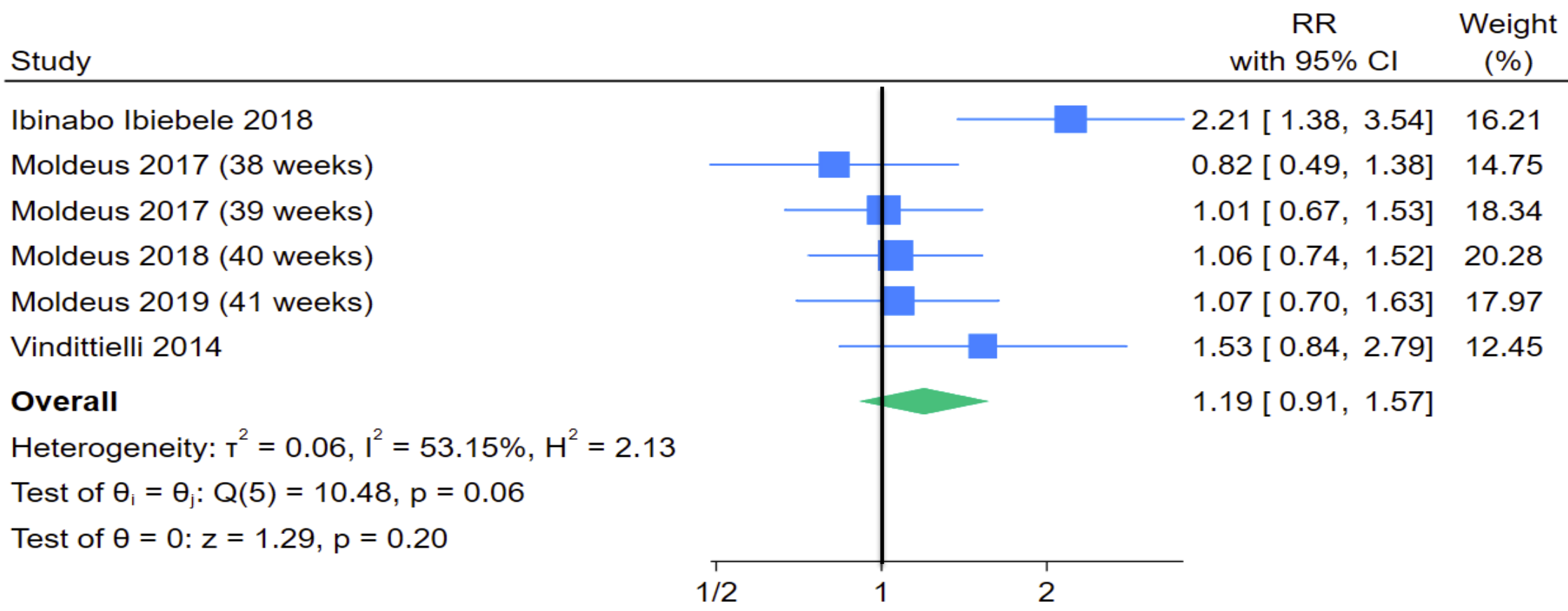
Random-effects REML model

CESAREAN SECTION



Random-effects REML model

NEONATAL TRAUMA



Random-effects REML model

CONCLUSION

- In non-diabetic pregnancies with ultrasound-suspected LGA, induction before 41 weeks is associated with a significant reduction in obstetric anal sphincter injury (OASIS).
- Reductions in shoulder dystocia and postpartum hemorrhage were observed, though not statistically significant. The directional consistency and absence of increased risk suggest potential benefit in selected cases.
- However, current evidence does not support routine early induction for all LGA pregnancies.
- Further randomized trials, especially within Asian populations, are needed to define the optimal timing of delivery and evaluate maternal and neonatal outcomes.

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