



Perioperative complications of a transvaginal cervical cerclage in singleton pregnancies: a systematic review and meta-analysis¹

C.E. van Dijk², S.H. Breuking, S. Jansen, C.E.J.M. Limpens, B.M. Kazemier, E. Pajkrt

OBJECTIVE

- Many studies report on limited adverse events of transvaginal cervical cerclage, but are not powered to draw conclusions about its safety.
- To estimate the risks and obtain an adequately informed consent is impossible.
- We conducted a **systematic review with pooled risk analyses** of perioperative complications and compare characteristics on the basis of indication for cerclage in singleton pregnancies.

DATA SOURCES

Ovid MEDLINE, Ovid Embase, Web of Science, the Cochrane Central Register of Controlled Trials (CENTRAL), ClinicalTrials.gov and the World Health Organization International Clinical Trial Registry Platform

STUDY ELIGIBILITY CRITERIA

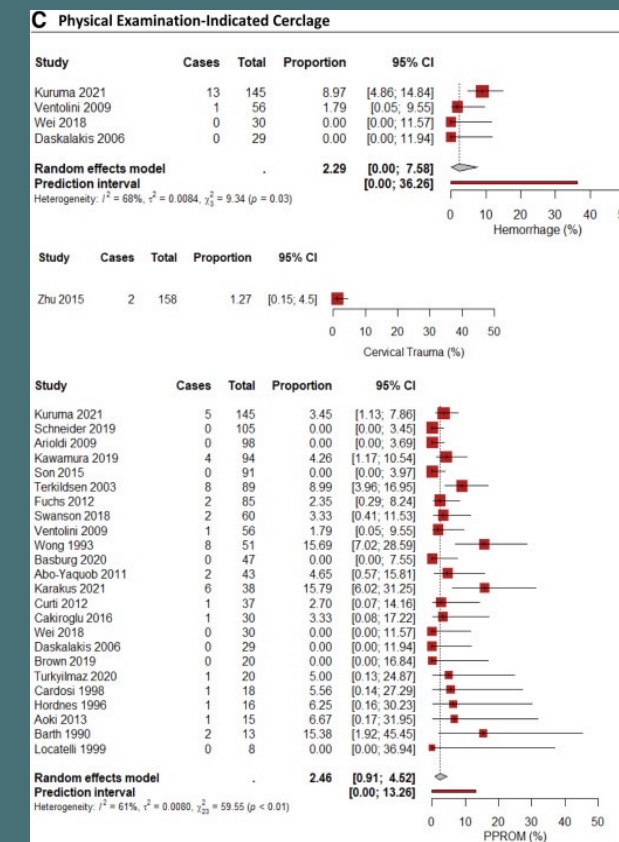
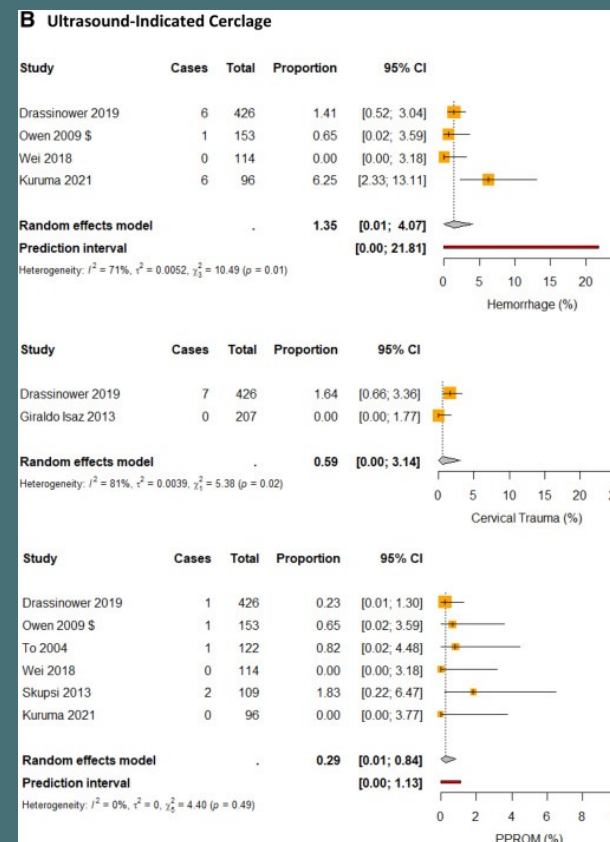
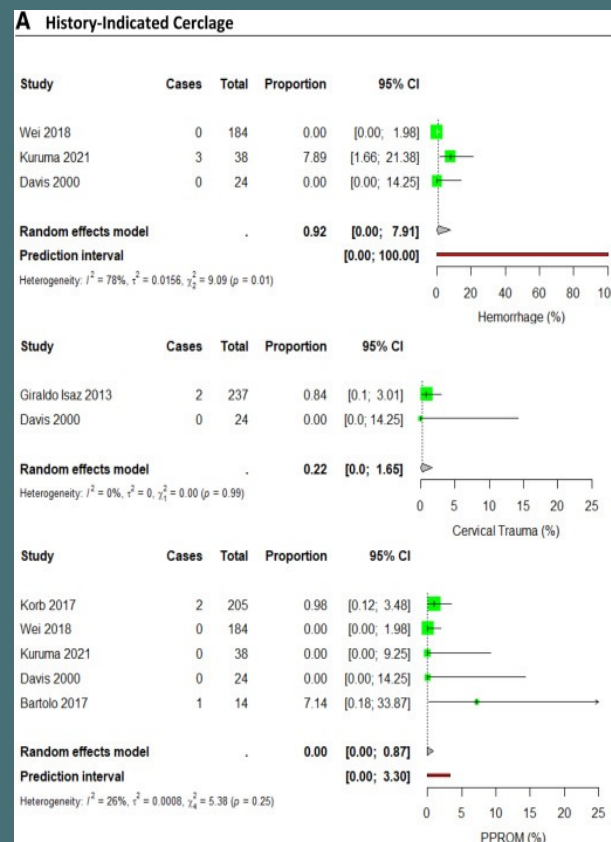
- RCTs and both retrospective and prospective observational cohort studies
- Reporting about complications in history-indicated cerclage (HIC), ultrasound-indicated cerclage (UIC), or physical examination-indicated cerclage (PEIC)
- Inclusion if they contained original data on the occurrence of adverse events during surgery or within 24 hours after surgery.

RESULTS

- 2328 potential studies; 3 RCTs, 3 prospective, and 38 retrospective cohort studies were included in the final analysis.
- Total of 4511 women with singleton: 1561 (34.6%) underwent HIC, 1348 (29.9%) UIC, and 1549 (33.3%) PEIC.
- Most perioperative complications occurred in PEIC, especially hemorrhage (2.3%; 95% CI, 0.0-7.6) and preterm premature rupture of membranes PPROM (2.5%; 95% CI, 0.91-4.5).
- The fewest complications occurred in HIC, varying from 0.0% of PPROM (95% CI, 0.0-1.7) to 0.9% of hemorrhage (95% CI, 0.0-7.9).

DISCUSSION

- First systematic overview published
- Considerable heterogeneity among the definitions used for the different indications
- Underreporting of complications



- The overall incidence of perioperative complications is low
- More often in PEIC than in HIC or UIC
- Poor documentation of occurrence and timing (ie, perioperative or later in pregnancy)
- Urgent need for uniform complication reporting

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² Obstetrics and Gynecology, Amsterdam UMC c.e.vandijk@amsterdamumc.nl