

Safety of antihypertensive therapy for women with chronic hypertension in pregnancy

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INTRODUCTION

Treatment of chronic high blood pressure during pregnancy is believed to improve vascular perfusion and fetal growth, decrease the incidence of pre-eclampsia and associated organ compromise, and may also reduce the risk of long-term cardiovascular disease (1) . However, there is evidence showing that antihypertensive management in pregnancy increases the risk of low birth weight and preterm delivery and there is controversy regarding the incidence of maternal complications (2) . Therefore it is important to assess the safety and effectiveness of antihypertensive therapy for women with chronic hypertension during pregnancy.

METHOD

A electronic search was conducted in MEDLINE, Embase, CENTRAL, LILACS, and ClinicalTrials. Hand-searched for conference proceedings (FIGO, RCOG, ACOG, FECOLSOG) and reference lists of included studies were assessed for inclusion without language restrictions, up to May 30, 2021. Randomized controlled trials (RCTs) comparing antihypertensive therapy with placebo, or no intervention were included. Two authors independently assessed trials, extracted data, and assessed the risk of bias using the Cochrane risk of bias tool (RoB-2). The GRADE approach was used to assess the quality of evidence. PROSPERO register CRD42021233097

RESULTS

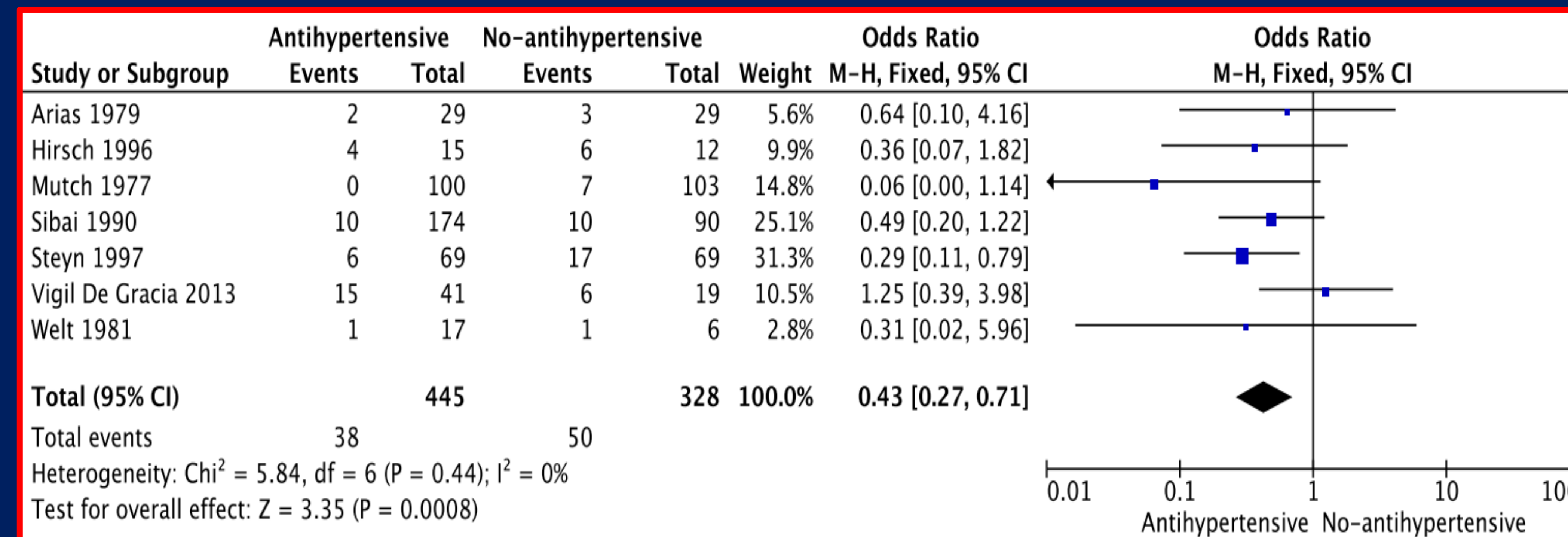
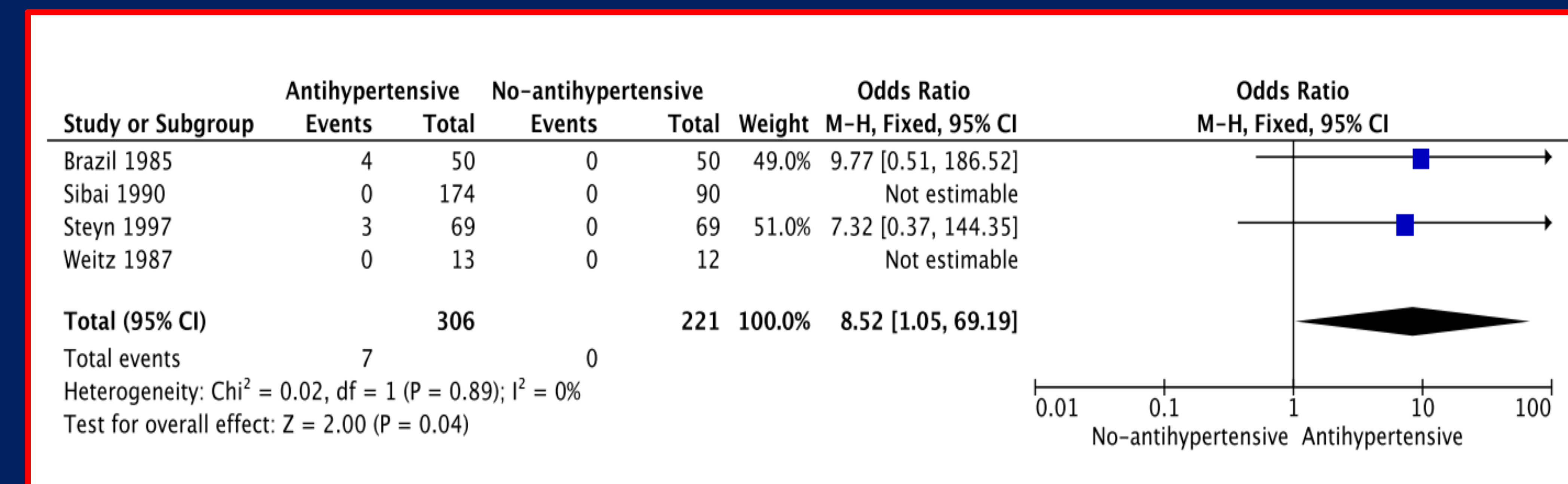
Eleven RCTs (n=1,632 women) compared antihypertensive treatment versus placebo or no treatment. Moderate-certainty evidence suggests that antihypertensive therapy probably halves the risk of developing severe hypertension (OR 0.43 95% CI 0.26-0.70). Moderate-certainty evidence also shows that antihypertensive therapy probably increases the incidence of maternal side effects (OR 8.52 95% CI 1.05-69.19). The effect of antihypertensive treatment is uncertain on the risk of maternal or neonatal death, placental abruption, renal impairment, early pregnancy loss, low APGAR score, stillbirth, and intrauterine growth restriction because the quality of evidence is low.

CONCLUSIONS

Antihypertensive therapy for women with chronic hypertension during pregnancy reduces the risk of developing severe hypertension with little or no effect on gestational age at delivery. Antihypertensive treatment probably increases the incidence of maternal side effects. The effect on other clinically important outcomes remains unclear.

REFERENCES

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