Antihypertensive drug therapy for mild to moderate hypertension during pregnancy (Review)

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**Antihypertensive drug therapy for mild to moderate hypertension during pregnancy**

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**ABSTRACT**

**Background**

Mild to moderate hypertension during pregnancy is common. Antihypertensive drugs are often used in the belief that lowering blood pressure will prevent progression to more severe disease, and thereby improve outcome.

**Objectives**

To assess the effects of antihypertensive drug treatments for women with mild to moderate hypertension during pregnancy.

**Search methods**


We updated the search of the Cochrane Pregnancy and Childbirth Group’s Trials Register on 6 August 2012 and added the results to the awaiting classification section of the review.

**Selection criteria**

All randomised trials evaluating any antihypertensive drug treatment for mild to moderate hypertension during pregnancy defined, whenever possible, as systolic blood pressure 140 to 169 mmHg and diastolic blood pressure 90 to 109 mmHg. Comparisons were of one or more antihypertensive drug(s) with placebo, with no antihypertensive drug, or with another antihypertensive drug, and where treatment was planned to continue for at least seven days.

**Data collection and analysis**

Two review authors independently extracted data.
Main results

Forty-six trials (4282 women) were included. Twenty-eight trials compared an antihypertensive drug with placebo/no antihypertensive drug (3200 women). There is a halving in the risk of developing severe hypertension associated with the use of antihypertensive drug(s) (19 trials, 2409 women; relative risk (RR) 0.50; 95% confidence interval (CI) 0.41 to 0.61; risk difference (RD) -0.10 (-0.12 to -0.07); number needed to treat (NNT) 10 (8 to 13)) but little evidence of a difference in the risk of pre-eclampsia (22 trials, 2702 women; RR 0.97; 95% CI 0.83 to 1.13). Similarly, there is no clear effect on the risk of the baby dying (26 trials, 3081 women; RR 0.73; 95% CI 0.50 to 1.08), preterm birth (14 trials, 1992 women; RR 1.02; 95% CI 0.89 to 1.16), or small-for-gestational-age babies (19 trials, 2437 women; RR 1.04; 95% CI 0.84 to 1.27). There were no clear differences in any other outcomes.

Nineteen trials (1282 women) compared one antihypertensive drug with another. Beta blockers seem better than methyldopa for reducing the risk of severe hypertension (10 trials, 539 women, RR 0.75 (95% CI 0.59 to 0.94); RD -0.08 (-0.14 to 0.02); NNT 12 (6 to 275)). There is no clear difference between any of the alternative drugs in the risk of developing proteinuria/pre-eclampsia. Other outcomes were only reported by a small proportion of studies, and there were no clear differences.

Authors’ conclusions

It remains unclear whether antihypertensive drug therapy for mild to moderate hypertension during pregnancy is worthwhile.

[Note: The 23 citations in the awaiting classification section of the review may alter the conclusions of the review once assessed.]

PLAIN LANGUAGE SUMMARY

Antihypertensive drug therapy for mild to moderate hypertension during pregnancy

Not enough evidence to show whether antihypertensive drug treatment for mild to moderate hypertension during pregnancy is worthwhile.

During the early weeks of normal pregnancy, blood pressure falls and climbs slowly in later pregnancy to reach pre-pregnancy levels at term. Mild to moderate hypertension (high blood pressure) is common during pregnancy. In some women, it can become more serious, resulting in hospital admission, pre-eclampsia (a complication of pregnancy that includes high blood pressure) and possible premature delivery. Antihypertensive drugs are often used to lower blood pressure in the belief that they will prevent this progression. The review of 46 trials, involving 4282 women, found there was not enough evidence to show the benefit of antihypertensive drugs for mild to moderate hypertension during pregnancy. More research is needed.