

Examining Low Dose Aspirin in Preeclampsia Prevention

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Abstract

- Preeclampsia is a prevalent complication during pregnancy, characterized by high blood pressure posing significant risks to maternal and child health.
- The main focus of this literature review was to explore the effectiveness of aspirin prophylaxis in preventing preeclampsia in high risk pregnant woman.
- Findings indicate administering a low-dose of aspirin can significantly lower the incidence of preeclampsia in both at risk and not at risk pregnant woman.

Objectives

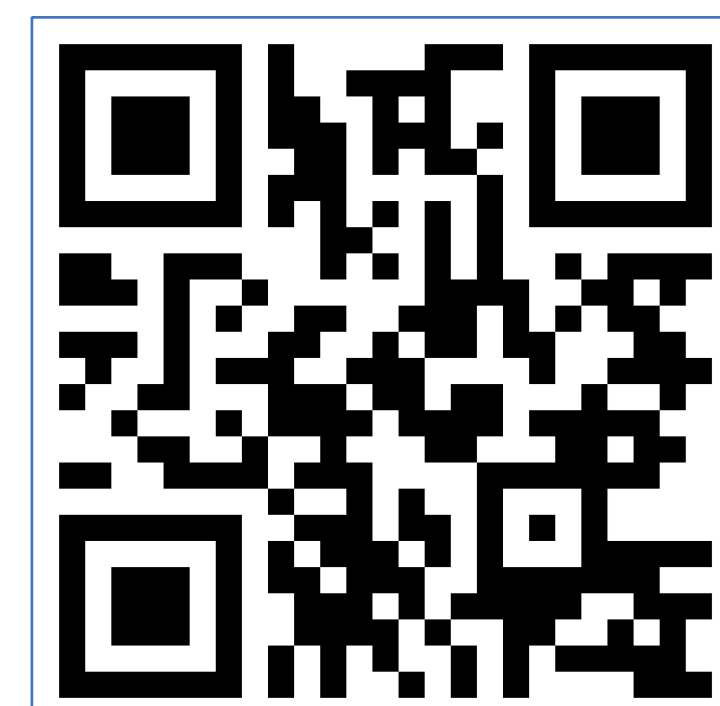
- Investigate the effectiveness of low dose aspirin in preventing preeclampsia in high risk pregnancy
- Determine the optimal dosage for reducing the incidence of preeclampsia and its effectiveness in improving maternal and child health



Fig 1: Graphic from University of Mississippi Medical Center

Methods

- A search for “preeclampsia” in an extensive database produced 237 results in Pubmed.
- Boolean operators were utilized during my search with the key terms “and” with the combination of “prevention” AND “preeclampsia” AND “aspirin” including the criteria of articles published within the last five years, full text, English, and randomized control resulted in 28 results.
- Upon searching Google Scholar and using the “Preeclampsia” and “aspirin” boolean operator terms, there was a result of 36,200 articles.
- After inclusion was applied, there was a result of 68 articles.
- Soon after examining most of the articles by exploring the abstract and titles I was able to narrow down my search to about 50 articles.
- The main focus of my search was to examine whether aspirin is effective in reducing preeclampsia among high-risk pregnancies excluding patients with any underlying conditions and consisted mostly of pregnant women above the age of 18 years old.



PREECLAMPSIA PROTECTION?

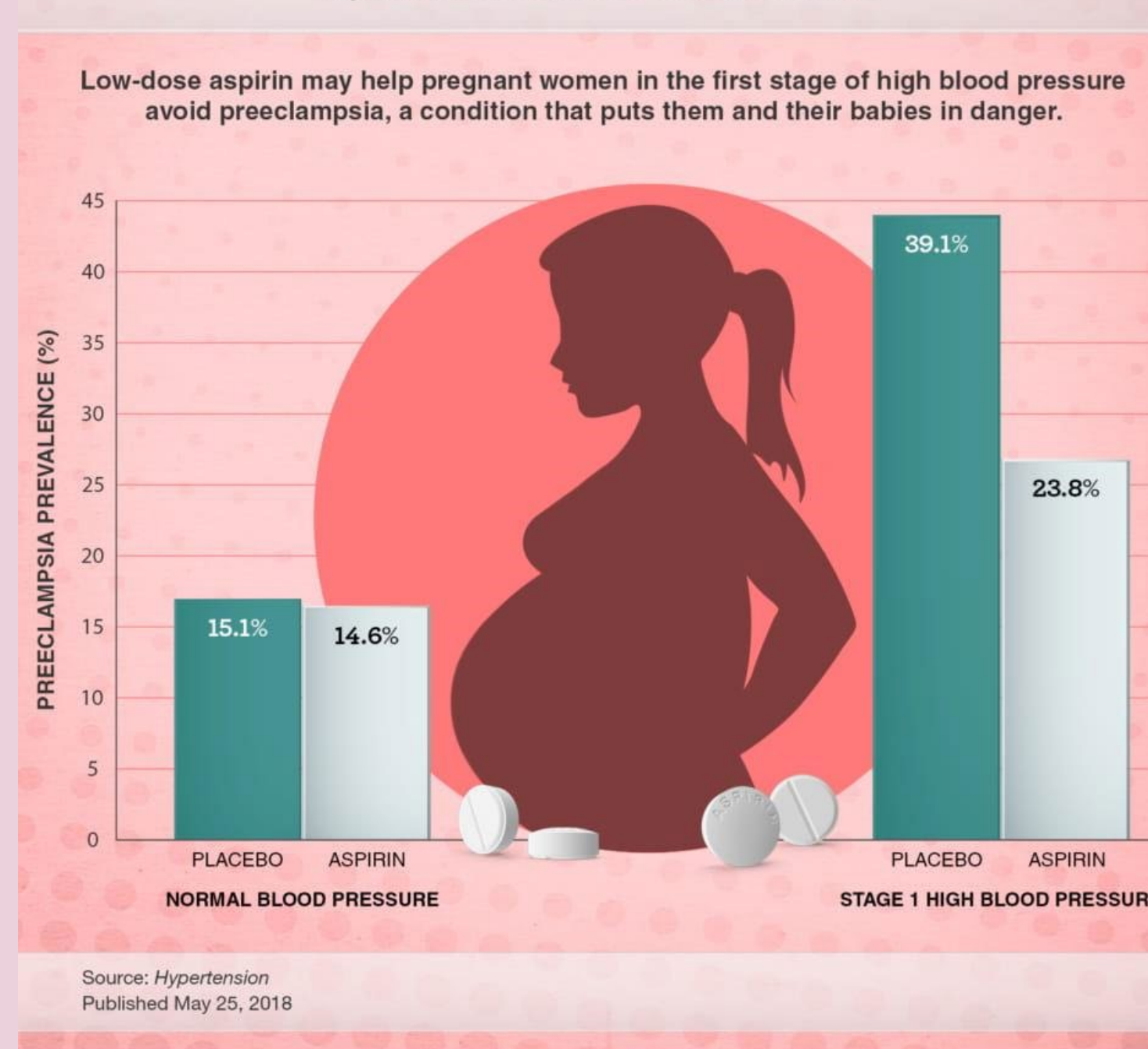


Fig 2: Infographic from American Heart Association News

Results

- Pregnant woman who received aspirin prophylaxis at 75 mg per day had a significantly lower incidence of preeclampsia (2%) compared to those receiving standard treatment (12.9%)
- A 150 mg dose was more effectiveness in high risk pregnancies compared to 75 mg
- Aspirin prophylaxis was more effective than standard care or placebo in reducing preeclampsia incidence

Conclusions

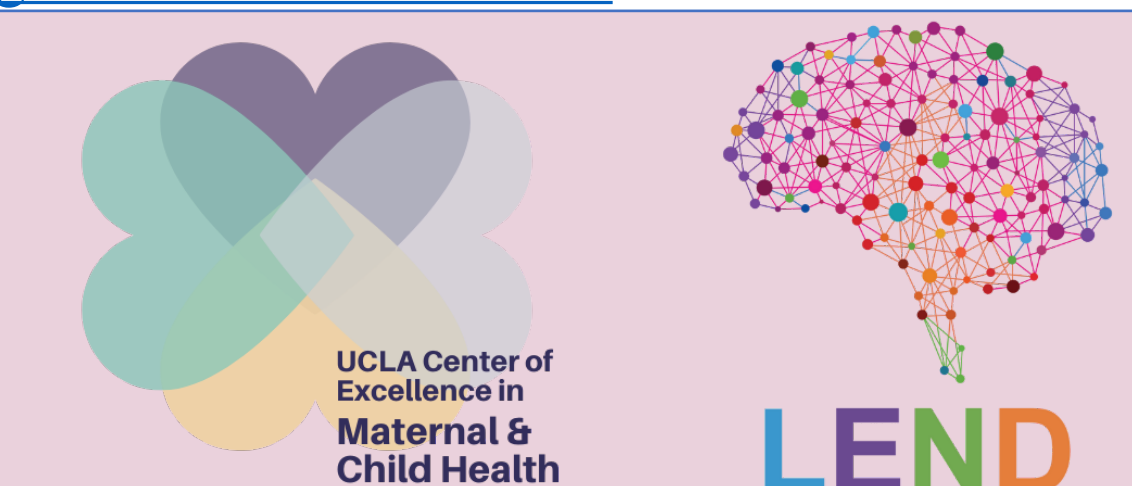
- Low-dose of aspirin is effective in reducing the incidence of preeclampsia.
- Aspirin prophylaxis, a dose of 75mg -150mg daily significantly lowers rates of preeclampsia, preterm birth and miscarriages.
- The effectiveness of aspirin is positively correlated with the dosage, suggesting that higher doses yield better outcomes.

Future Research

- If appropriate dose of aspirin prophylaxis is given between 12 and 34 weeks of gestation it will help reduce the incident rate of preeclampsia
- Research conducted did not explain whether there are differences in the incident rates of preeclampsia between individuals who receive aspirin prophylaxis and those who receive other interventions

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