# Article information:

J. Zhang - Efficacy and safety of combination of magnesium sulfate, phentolamine and nifedipine in treatment of patients with hypertensive disorder complicating pregnancy
[https://click.endnote.com/viewer?doi=10.3892%2Fetm.2019.7965=WzQwNDUzMDQsIjEwLjM4OTIvZXRtLjIwMTkuNzk2NSJd.SrEmVM4bDhzpQPz52Wv2tWpdxVU](https://click.endnote.com/viewer?doi=10.3892%2Fetm.2019.7965&token=WzQwNDUzMDQsIjEwLjM4OTIvZXRtLjIwMTkuNzk2NSJd.SrEmVM4bDhzpQPz52Wv2tWpdxVU)

# Article summary:

1. The combination of magnesium sulfate, phentolamine, and nifedipine is effective in improving hemodynamic indexes, 24-hour urinary protein level, clinical efficacy, adverse drug reactions (ADR), and maternal and neonatal outcomes in patients with hypertensive disorder complicating pregnancy (HDCP).

2. Before treatment, there was no significant difference between the magnesium sulfate group and the combination group in terms of S/D ratio of umbilical artery flow and cardiac index. However, after treatment, both groups showed a significant decrease in S/D ratio and total peripheral resistance (TPR).

3. Patients in the combination group had significantly lower 24-hour urinary protein levels after treatment, higher total effective rate, lower incidence rate of ADRs, and lower incidence rate of adverse maternal and neonatal outcomes compared to those in the magnesium sulfate group.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled Efficacy and safety of combination of magnesium sulfate, phentolamine and nifedipine in treatment of patients with hypertensive disorder complicating pregnancy presents a retrospective analysis of 106 patients with HDCP who were treated with either magnesium sulfate alone or a combination of magnesium sulfate, phentolamine, and nifedipine. The study aimed to investigate the efficacy and safety of the combination therapy in improving hemodynamic indexes, urinary protein levels, clinical efficacy, adverse drug reactions (ADR), and maternal and neonatal outcomes.

The article provides a detailed description of the study design, patient selection criteria, treatment protocols, and outcome measures. The results show that both treatment groups had significant improvements in hemodynamic indexes and urinary protein levels after treatment. However, the combination group had significantly higher total effective rates, lower incidence rates of ADRs and adverse maternal and neonatal outcomes compared to the magnesium sulfate group.

While the study provides valuable insights into the potential benefits of combining magnesium sulfate with phentolamine and nifedipine for treating HDCP patients, there are several limitations to consider. Firstly, as a retrospective analysis, the study is subject to selection bias as patients were not randomly assigned to treatment groups. Secondly, there is no control group included in the study design which limits its ability to draw definitive conclusions about the effectiveness of the combination therapy compared to other treatments or placebo.

Additionally, while the article notes that magnesium sulfate is currently considered the first choice for preventing and treating HDCP due to its anticonvulsant properties, it does not provide any evidence-based rationale for why phentolamine or nifedipine should be added to this regimen. The article also does not explore potential risks associated with combining these drugs or discuss any counterarguments against their use.

Overall, while this study provides some evidence supporting the use of a combination therapy approach for treating HDCP patients, further research is needed to confirm its effectiveness and safety. The article's potential biases include selection bias and one-sided reporting, while missing points of consideration include the lack of a control group and evidence-based rationale for the combination therapy.

# Topics for further research:

* Risks and side effects of phentolamine and nifedipine in combination with magnesium sulfate for HDCP treatment
* Comparison of combination therapy with other treatments for HDCP
* Mechanisms of action of phentolamine and nifedipine in HDCP treatment
* Long-term outcomes for mothers and neonates treated with combination therapy for HDCP
* Guidelines for HDCP treatment and management
* Factors contributing to the development of HDCP and prevention strategies

# Report location:

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