# Article information:

Therapeutic efficacy of phentolamine in the management of severe hand, foot and mouth disease combined with pulmonary edema - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5377404/>

# Article summary:

1. Phentolamine was found to reduce mortality and relieve symptoms of severe hand, foot and mouth disease (HFMD) combined with pulmonary edema (PE).

2. Patients treated with phentolamine had significantly lower levels of creatine kinase, CK-MB, and cardiac troponin I, as well as lower heart rate and systolic blood pressure.

3. Phentolamine is a potential therapeutic agent for HFMD with PE, but further evaluation in prospective clinical studies is needed.

# 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 "Therapeutic efficacy of phentolamine in the management of severe hand, foot and mouth disease combined with pulmonary edema" presents a study that aimed to examine the effects of phentolamine on severe HFMD combined with PE. The study found that phentolamine-treated patients exhibited significantly lower CK, CK-MB and cTnI levels, heart rate and SBP than the controls. The average duration of ventilator dependence and hospitalization was also significantly shorter in the phentolamine group than in the control group. It was also found that the overall mortality rate was lower in the phentolamine group than in the control group.

The article provides a detailed description of the study design, patient selection criteria, intervention methods, and outcomes. However, there are several potential biases and limitations to consider when interpreting these results.

Firstly, the study is a single-center open-label randomized trial. This means that there may be potential biases due to lack of blinding or randomization procedures. Additionally, the sample size is relatively small (105 patients), which may limit generalizability.

Secondly, while the article suggests that phentolamine is a potential therapeutic agent for HFMD with PE based on its findings, it does not provide any evidence for how or why this might be true beyond blocking α-adrenergic receptors. Further research is needed to fully understand how phentolamine works and whether it is an effective treatment option for this condition.

Thirdly, while adverse events were recorded during the study period, no adverse events were observed in either group. This may suggest that adverse events were underreported or not adequately monitored during the study period.

Fourthly, while the article notes that other mediators discharged during sympathetic activation might play important roles in increasing lung permeability during PE, it does not explore these mechanisms further or consider alternative treatment options beyond phentolamine.

Overall, while the study provides preliminary evidence that phentolamine may be an effective treatment option for HFMD with PE, further research is needed to fully understand its mechanisms of action and potential risks and benefits. Additionally, alternative treatment options should be explored and considered in future studies.

# Topics for further research:

* Mechanisms of action of phentolamine in pulmonary edema
* Alternative treatment options for severe hand
* foot and mouth disease with pulmonary edema
* Adverse events associated with phentolamine treatment
* Sympathetic activation and lung permeability in pulmonary edema
* Randomized controlled trials for phentolamine in severe hand
* foot and mouth disease with pulmonary edema
* Generalizability of phentolamine treatment for severe hand
* foot and mouth disease with pulmonary edema

# Report location:

<https://www.fullpicture.app/item/d6e357d3884904f99c738fed712e44f2>