

**PENGARUH PEMBERIAN OMEGA 3 TERHADAP KADAR
NITRIC OXIDE PADA PREEKLAMPSIA DI
RSUP DR. M. DJAMIL PADANG**



TESIS

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ABSTRAK

PENGARUH PEMBERIAN OMEGA 3 TERHADAP KADAR *NITRIC OXIDE* PADA PREEKLAMPSIA DI RSUP DR. M. DJAMIL PADANG

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Pendahuluan: Preeklamsia mengakibatkan disfungsi endotel karena berkurangnya bioavailabilitas *nitric oxide* (NO). Suplementasi Omega-3 dalam diet dapat menurunkan stres oksidatif dan proses inflamasi. Omega-3 menurunkan insiden kardiovaskular melalui efeknya terhadap peningkatan nitrit oxide.

Tujuan: Penelitian ini bertujuan mengetahui pengaruh pemberian Omega-3 terhadap kadar *nitric oxide* pada preeklamsia.

Metode: Penelitian ini merupakan penelitian eksperimental dengan desain *pre and post-test control group* yang dimulai pada Maret 2022 di Bagian/SMF Obstetri dan RSUP Dr. M. Djamil Padang. Sampel penelitian adalah ibu dengan preeklamsia yang berobat ke PONEK RSUP Dr. M.Djamil Padang pada usia 20-32 minggu tanpa hipertensi kronis, hipertensi gestasional, keganasan dan infeksi berat.

Hasil: Pada penelitian ini terdapat 32 orang ibu hamil preeklamsia yang diberikan omega 3 dan placebo. Pada kelompok yang diberikan plasebo, kadar NO sebelum dan sesudah perlakuan adalah $22,38 \pm 4,14$ dan $23,21 \pm 4,05$, sedangkan pada kelompok yang diberikan Omega 3, kadar NO sebelum dan sesudah perlakuan adalah $21,60 \pm 8,33$ dan $31,98 \pm 10,35$. Pada analisis T independent ditemukan terdapat perbedaan signifikan dari kadar NO sesudah pemberian omega 3 dan placebo.

Kesimpulan: Terdapat pengaruh pemberian omega-3 terhadap kadar NO ibu hamil dengan preeklamsia.

Kata kunci: Omega 3, Nitrit oksida, Preeclampsia

ABSTRACT

THE EFFECT OF OMEGA 3 SUPPLEMENTATION ON NITRIC OXIDE LEVELS IN PREECLAMPSIA WOMEN AT RSUP DR. M. DJAMIL PADANG

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Introduction: Preeclampsia causes endothelial dysfunction due to reduced nitric oxide (NO) bioavailability. Supplementation of Omega-3 can reduce oxidative stress and inflammatory processes. Omega-3 reduce cardiovascular events through their effect on increasing nitric oxide.

Aim: This study aims to determine the effect of Omega-3 administration on nitric oxide levels in preeclampsia.

Methods: This study was an experimental study with a pre- and post-test control group design which began in March 2022 at the Obstetrics/SMF Department and RSUP Dr. M. Djamil Padang. The sample were pregnant women with preeclampsia who went to Comprehensive Emergency Neonatal Obstetrics Services at Dr. M.Djamil Hospital, Padang at the gestation age of 20-32 weeks without chronic hypertension, gestational hypertension, malignancy and severe infection.

Results: There were 32 pregnant womens with preeclampsia who were given omega 3 and placebo. In the placebo group, the NO levels before and after treatment were 22.38 ± 4.14 and 23.21 ± 4.05 , while in the group of Omega 3, the NO levels before and after treatment were 21.60 ± 8.33 and 31.98 ± 10.35 . In the independent T analysis, it was found that there was a significant difference in NO levels after administration of omega 3 and placebo.

Conclusion: There is an effect of omega-3 supplementation on NO levels of pregnant women with preeclampsia.

Keywords: Omega 3, Nitric oxide, Preeclampsia