# PENGARUH JENIS KELAMIN HEWAN COBA TERHADAP ANGKA MORTALITAS TIKUS (*Rattus norvegicus)* PASCA LIGASI ARTERI CAROTIS COMMUNIS BILATERAL SELAMA 20 MENIT DENGAN REPERFUSI 2 DAN 24 JAM

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## INTISARI

**Latar Belakang :** Kejadian stroke pada wanita premenopause lebih rendah dibanding laki-laki. Hal ini dikarenakan pada wanita terdapat hormon estrogen yang berperan sebagai neuroprotektan. Penelitian ini bertujuan untuk mengetahui pengaruh jenis kelamin hewan coba terhadap angka mortalitas tikus (*Rattus norvegicus*) pasca BCCAO selama 20 menit dan reperfusi 2 jam dan 24 jam.

**Metode Penelitian :** Penelitian ini bersifat kuasi eksperimental di laboratorium. Rancangan penelitian yang digunakan adalah *post test control group design.* Tikus dibagi menjadi 4 kelompok, yakni kelompok jantan dengan reperfusi 2 jam, kelompok betina dengan reperfusi 2 jam, kelompok jantan dengan reperfusi 24 jam, dan kelompok betina dengan reperfusi 24 jam. Perlakuan iskemia selama 20 menit, kemudian dilakukan penutupan luka bekas insisi dan diamati sesuai dengan kelompok reperfusinya. Kemudian dibandingkan angka mortalitas antar jenis kelamin menggunakan uji *Fisher's Exact.*

**Hasil :** Pada kelompok reperfusi 2 jam didapatkan perbedaan signifikan (P = 0,028), dimana angka mortalitas pada jenis kelamin jantan (62,5%) lebih tinggi dibandingkan betina (0%), namun pada kelompok reperfusi 24 jam didapatkan perbedaan tidak signifikan (P = 0,773), karena jumlah angka mortalitas antara kelompok jantan (16,67%) dan betina (16,67%) sebanding.

**Kesimpulan :** Terdapat pengaruh jenis kelamin terhadap angka mortalitas pada kelompok stroke dengan reperfusi 2 jam, dan tidak terdapat pengaruh jenis kelamin terhadap angka mortalitas pada kelompok stroke dengan reperfusi 24 jam.

**Kata Kunci :** *Bilaterally Carotid Communist Artery Occlusion* (BCCAO), Jenis kelamin, Angka mortalitas

# *SEX EFFECT OF ANIMALS TRIAL AGAINST MORTALITY OF RATS (Rattus norvegicus) DURING 20 MINUTES POST BILATERALLY COMMUNIST CAROTID ARTERY OCCLUSION, FOLLOWED 2 HOURS AND 24 HOURS REPERFUSION*

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## *ABSTRACT*

***Background**: The incidence of stroke in premenopausal women lower than men. This is because there are hormones of estrogen in women who act as neuroprotector. This research aims to know the sex of the animal trial to influence of the number of mortality of rats (Rattus norvegicus) post Bilaterally Communist Carotid Artery Occlusion (BCCAO) for 20 min and reperfusion 2 hours and 24 hours.*

***Methods**: This research was quasi experimental in laboratory. The research design was post test control group design. Rats were divided into 4 groups, the male rats with 2 hours reperfusion, the male rats with 24 hours reperfusion, the female rats with 2 hours reperfusion, and the female rats with 24 hours reperfusion. Ischemia intervention has been done for 20 minutes, then incision wound was closed and observed for each groups. Mortality rate between male and female rats were compared using Fisher's Exact.*

***Results**: After 2 hours reperfusion, significant difference of mortality was found between males (62,5%) and females (0%), with P = 0,028. In other hand, mortality between males and females was no significant difference in 24 hours reperfusion P = 0,773.*

***Conclusion**: There was effect of sex on mortality figures against stroke with 2 hours reperfusion, and there was no effect of sex on mortality figures against stroke group with 24 hours reperfusion.*

***Keyword**: Bilaterally Carotid Communist Artery Occlusion* (BCCAO), *Sex, Mortality Rate*