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Hal. : Ucapan terima kasih

Lamp. : -

Kepada Yth. : Dr. dr. Retty Ratnawati, MSc(QU), AIF
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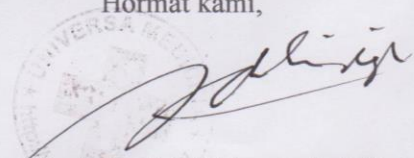
Dengan hormat,

Bersama ini kami kirimkan Jurnal Universa Medicina edisi Mei-Agustus 2017, Vol.36 No.2 sebanyak 1 (satu) eksemplar Jurnal dan 2 (dua) cetak lepas dari Redaksi Universa Medicina sebagai tanda terima kasih dan bukti atas publikasi artikel Saudara berjudul "*Catechins decrease neurological severity score through apoptosis and neurotropic factor pathway in rat traumatic brain injury*".

Semoga dengan dimuatnya artikel tersebut dapat menambah publikasi atas nama Saudara.

Terima kasih atas perhatian dan kerjasama Saudara pada Jurnal Universa Medicina. Kami sangat mengharapkan artikel Saudara yang lain.

Hormat kami,


Prof. Dr. Adi Hidayat, dr. MS
Pemimpin Redaksi



[UnivMed] Editor Decision  Inbox



Rita Hemawati

to me, Retty

18:23 [View details](#)



The following message is being delivered on behalf of Universa Medicina.

Dear Colleague anastasia novita sari:

We have reached a decision regarding your submission to Universa Medicina,
"Pengaruh Catechins terhadap Inflamasi, Apoptosis, dan Faktor Neurotropik serta Perbaikan Klinis Tikus Cedera Otak Traumatik".

Our decision is to: Accept Submission

With best regards,

Editor

Universa Medicina

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Catechins decrease neurological severity score through apoptosis and neurotropic factor pathway in rat traumatic brain injury

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ABSTRACT

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BACKGROUND

Catechins inhibit apoptosis through anti-oxidative and anti-inflammatory pathways, also increases brain-derived neurotrophic factor (BDNF). Only a few research that explained the role of catechins in traumatic brain injury (TBI). The objective of the study was to evaluate the effect of catechins administration on neurological severity score (NSS) through apoptosis and neurotrophic pathway in TBI rat model.

METHODS

A post test only controlled group design was conducted using *Rattus norvegicus* weight-drop models of TBI. It was divided into negative control, positive control, TBI+catechins 513 mg/kgBW, TBI+catechins 926 mg/kgBW, and TBI+catechins 1113 mg/kgBW groups. Catechins was administered daily for three days and seven days post-trauma. NSS was examined in the first hour, third day, and seventh day. Expression of TNF α , Bax, Bcl-2, caspase 8 caspase 3, BDNF, total expression of NF κ B p65, and apoptosis cells in brain tissue was measured by immunohistochemistry method. One way Anova and Kruskal Wallis were used to analyse the data.

RESULTS

Catechins decreased the expression of TNF α , caspase 8 caspase 3, total expression NF κ B p65, apoptosis cells and NSS significantly ($p < 0.050$) on the third day, either on the seventh day. Catechins increased the expression of BDNF significantly ($p < 0.050$) on the third day, either on the seventh day. Catechins increased the expression of Bcl-2/Bax significantly ($p < 0.050$) on the third day, neither on the seventh day ($p \geq 0.050$).

CONCLUSIONS

Administration of catechins decrease NSS by inhibiting inflammation and apoptosis, as well as triggering the neurotrophic factors in rat TBI.

Keywords: Catechins, TBI, apoptosis, inflammation