# The Effectivity of Combination Extract Acalypha Indica Linn and Centella Asiatica on Picnotic Cells in Gyrus Dentatus Internus in Sprague Dawley Rats Pascahypoxia

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**Background**

Stroke is cerebrovascular disease caused by cessation of arterial blood flow to the brain. Approximately 80-85% of strokes are ischemic strokes caused by arterial obstruction in the circulation of cerebellum. Cerebral hypoxia caused by ischemia of the brain gives result in alteration of cells morphology and cell death in which neuron cells become picnotics. This will later manifests in the form of neurological disability shown in the affected individuals resulting in the need to take long term medication. Citicoline is an effective drug for stroke based on research but has drawbacks in term of usage and high price which cause it to be less efficient in the community. The herbs cat root and Indian pennywort are alternative drugs for stroke therapy because of its neuroprotective effects. Combination dose of these two herbs are expected to provide a change in number of picnotic cells in rat's brain.

**Aims & Objectives**

To determine the effectivity of combination extract acalypha indica linn and centella asiatica on picnotic cells in gyrus dentatus internus in Sprague Dawley rats pascahypoxia.

**Material & Moethods**

This research experiments on giving the extract of cat root and indian pennywort to 5 groups of hypoxic rats in various dose (150, 200, 250 mg of cat root combined with 150 mg of Indian pennyworts), negative control is given aquades and positive control is given citicoline. The cerebellum of the rats is then taken and is made to histopathologic preparation to see the changes of picnotic cells in gyrus dentatus internus.

**Results**

From the One Way Anova test results, it can be seen that there is no meaningful changes in the number of picnotic cells after the treatments are given to the rats ($p>0,05$).

**Conclusions**

In conclusion, therapy with combination of cat root and Indian pennywort does not provide changes in number of picnotic cells in gyrus dentatus internus of the rats.