

ABSTRACT**THE EFFECT OF RESVERATROL ON MOTOR, SENSOR, AND
COGNITIVE FUNCTIONS IN ANIMALS WITH ISCHEMIC
STROKE MODELS**

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Ischemic stroke is a neurological disorder caused by a blockage in the blood vessels of the brain that blocks supply blood to the brain that trigger brain cell death. Resveratrol has neuroprotective functions related to anti-inflammatory, antioxidant properties, and control cell apoptosis. This study was aimed to determine the effect of resveratrol observed in motor, sensory, and cognitive functions. Changes in motor function evaluated through measurements with a ladder rung walking test described as a percentage value of the total hindlimb score and narrow beam walking test described as latency time and total time. A sensory function observed through measurements with an adhesive removal tape test described as a time to touch and time to remove. A cognitive function can be observed with T maze described as a percentage value of the correct choice. Experimental animals were induced with the IUCCAO model. The testing group consisted of, the sham group, the stroke group, the group sham and stroke with resveratrol doses of 10 mg/kg, 20 mg/kg, and 30 mg/kg. Resveratrol is given 30 minutes intraperitoneal (i.p.) after reperfusion. The result showed that resveratrol at a dose of 10 mg/kg, 20 mg/kg, and 30 mg/kg can improve motor function in coordination and walking skills, and a higher dose is needed for optimal results in speed and balance of stroke-induced walking animals with stroke ischemic. However, resveratrol at this dose does not affect the sensory function and can interfere with cognitive function in experimental animals induced by ischemic stroke.

Keywords: Ischemic stroke, resveratrol, motoric, sensory, cognitive