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## THE EFFECTS OF RUTIN ON MEMORY RETRIEVAL IN NORMAL RATS

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**Introduction:** Various synthetic derivatives of natural flavonoids are known to have neuroactive properties.

**Objectives:** It has been reported that rutin (3, 3', 4', 5, 7-pentahydroxy flavone-3-rhamnoglucoside) has several pharmacological properties and it was found to be a neuroprotective agent.

**Aims:** To investigate the effects of rutin, a flavonoid that is an important dietary constituent of foods and plant-based beverages, on memory retrieval in rats.

**Methods:** We assessed the effect of rutin on memory retrieval using a step-through passive avoidance task. Control (saline, 0.1 ml/100 g body weight) and rutin (5, 10, and 100 mg/kg) were administered intraperitoneally (i.p.) one week before the start of training. Three retention tests were performed to assess memory in rats.

**Results:** Rutin (10 mg/kg) significantly increased the step-through latency of the passive avoidance response compared to the control in the three retention tests of the passive avoidance paradigm. These results indicate that rutin has a potential role in enhancing memory retrieval.

**Conclusions:** It is possible that rutin acts by several mechanisms, mediating a potential role in memory retrieval in rats. This result supports the potential beneficial effects of rutin as a dietary supplement on memory retrieval in a passive avoidance task.