Research Paper (2)

Insulin-Like Growth Factor-1 in Acute Ischemic Stroke

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Abstract

Background: Cerebrovascular ischemic stroke is highly prevalent in the general population and is considered one of the frequent causes of mortality and disability. Insulin-like growth factor-1 (IGF-1) is recognized as an important neuro-protective factor against cerebral vascular ischemic insult.

Aim of the work: To study the relationship between serum IGF-1 levels and acute ischemic stroke (AIS) in the Egyptian population.

Patients and methods: Two hundred patients with AIS (within the first 24 h) were subjected to full neurological examination, assessment of stroke severity using National Institute of Health Stroke Scale (NIHSS) and measurement of serum IGF-1 levels. The control group included 100 subjects matched for age, gender, and conventional vascular risk factors.

Results: Serum IGF-1 levels were significantly reduced in cases of first AIS compared to control group. A reduced serum IGF-1 level was an independent risk factor for ischemic stroke with cut off value less than 148.3 ng/ml associated with increased AIS risk.

Conclusion: Lower IGF-1 levels are significantly related to risk of ischemic stroke occurrence, independent from other conventional risk factors in the Egyptian population.

Keywords: Stroke, Risk factors, IGF-1