

## Carotid Intima Media Thickness in Leukoaraisis Patients

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### Abstract

**Background:** Duplex ultra-sonography is a non-invasive, non-expensive screening test for carotid disease. Intima media thickness (IMT) is appropriate for atherosclerosis process diagnosis. Leukoaraisis (LA) increase the risk of cerebrovascular accident (CVA). LA patients need preventive medication for CVA. IMT is a non-invasive diagnostic and prognostic test in LA.

**Objectives:** The aim of this study was comparison of carotid IMT in LA patients and control group.

**Method:** The case-control study was done on 100 LA patients and 100 controls. They were selected by simple sampling method in Shaheed Sadoughi MRI unit. Two groups member were matched by age and sex. The patient's information (age, sex, weight, height, past medical history, smoking history, ischemic heart disease (IHD), CVA and past medication) according the study checklist was collected. All statistical analysis were done by SPSS21.

**Results:** totally 200 patients were studied, 102 in normal group and 98 in ILA group. The mean age of patients was 64.39 ( $\pm$  9.12) and 47% participants were male. There were no statistical differences between hypertension and hyperlipidemia frequency in two groups (P value > 0.05). The mean of left CIMT was 0.856 ( $\pm$  0.202) in normal and 0.962 ( $\pm$  171) in LA groups (P value: 0.026). The mean of right CIMT was 0.853 ( $\pm$  0.215) in normal and 0.973 ( $\pm$  188) in LA groups (p-value: 0.024).

**Conclusions:** LA increases the risk of CVA and dementia. The LA pathology is unknown. The epidemiological studies revealed the age, diabetes, smoking and atherosclerosis are related with LA. Our findings showed that CIMT as an atherosclerosis marker was higher in LA patients than control group.

**Keywords:** Leukoaraisis, Intima Media Thickness, Duplex Ultra-Sonography

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