



# **DUPLEX SONOGRAPHIC PARAMETERS IN CEREBRAL ISCHEMIC STROKE: CORRELATIVE STUDY WITH CLINICAL DATA.**

*Thesis Submitted to the faculty of medicine, Tanta University in partial fulfillment of  
MD degree in Neurology*

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## SUMMARY AND CONCLUSION

Stroke is the third most common cause of disability and second most common cause of death worldwide. A wide variety of factors influence stroke prognosis, including age, stroke severity, stroke mechanism, infarct location, comorbid conditions, clinical findings, and related complications. In addition, interventions such as thrombolysis, stroke unit care, and rehabilitation can play a major role in the outcome of ischemic stroke. Knowledge of the important factors that affect prognosis is necessary for the clinician to make a reasonable prediction for individual patients, to provide a rational approach to patient management.

The aim of this study is to correlate duplex ultrasonographic findings (parameters) as vascular imaging tool with: clinical data of ischemic stroke patients and radiological findings.

This work included three hundred consecutive patients with first ever ischemic stroke were recruited from stroke unit in Tanta University Hospitals; (206 were males and 94 were females). All cases were submitted to:

-Thorough history taking including; age, history of hypertension, diabetes, angina or myocardial infarction, smoking index, previous TIAs, and lipid disorder. Clinical examination including, of blood pressure, apical heart rate and body temperature, carotid and peripheral vascular pulsations was assessed.

Stroke severity was scored in all stroke patients according to National Institutes of Health. Functional status was evaluated by Modified version of Rankin Scale

-Routine laboratory investigations. Blood glucose levels, prothrombin time, activity and (INR), lipogram, CBC, Liver and renal function tests, serum electrolytes, blood uric acid, ESR and other tests.

-Ultrasound study using:

1. Transcranial Doppler (TCD).

2. Carotid Duplex (CD).
3. Computerized tomographic scan of brain with infarct volume estimation.