Risk Factors in Cerebral Stroke
(A case Control Study in Kasr-El Aini Hospital)

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Abstract

Stroke is the third leading cause of death in the world, it is the first leading cause of
adult disability. Many clinical and laboratory risk factors are accused to be
predisposing for the occurrence of stroke such as hypertension, diabetes cardiac
diseases and hypercholestrolemia. The current study is a **case control study**,
conducted on 450 subjects attending Kasr El Aini hospitals (150 stroke patients and
300 control subjects). **The objective** of this study is to detect these risk factors, and
assess their relation to the disabling effects of stroke to be used in the future as
alarming signals for early diagnosis. **Tools of the study** included physical
examination, dietary pattern, lab investigations, duplex, ECG and Echo cardiography.
Patients group was subjected to additional investigations such as Neurological
assessment scales including: Mini Mental State Examination (MMSE), Motoricity
Index, Barthel Index and Modified Rankin out come scale. CT scan was also
performed. **Results** showed a statistical significant difference between patient and
control groups regarding most clinical and laboratory risk markers. Hypertension,
smoking and transient ischemic attacks (TIAs)were considered among the most
predominant risk markers among the patient group with a poor outcome on cognitive,
motor deficits, and disability. Hypercholestrolemia recorded the worst outcome as
regards Modified Rankin disability scale. Moreover, prompt control of these risk
factors are associated with lowering these disabilities. Dietary habits played a major
role in stoke. The most frequent food categories consumed by the patient group were
fats, proteins, and caffeine; yet vegetables, and carbohydrates were the most
frequently consumed by control subjects. It is **recommended** that knowledge about
risk factors together with their effects on the outcome of the stroke attack be used in
planning of a national preventive program directed to the risk groups and also be
included in the primary care facilities for early detection and proper management of
such risk markers.

Introduction

Stoke is the leading cause of serious
disability and third leading cause of
death in developed countries. Report
of the American Heart Association
(AHA) stated that there is a stroke
about every minute and a person dies
of stroke every 3,5 minutes *(Mitchell
& Elkind 2003)*. The AHA published
that analysis of data from several

studies indicated that the age adjusted
incidence rate ranged between 100-300
per 100 000 population per year
(Sacco et al 1997). In Europe, the
overall incidence of stroke ranged from
63.5 to 273 per 100 000 population per
year *(Boysen & Truelsen, 1998)*.

Today, there is wealth of information
about the causes, risk factors,