EDITORIAL ARTICLE

NON-MODIFIABLE RISK FACTORS FOR ISCHEMIC STROKE

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Stroke is the third leading cause of death in western countries and in the United States, after coronary diseases a nd cancer. World-wide is the second leading cause of death causing 10% of deaths. Furthermore, stroke is the leading cause of adult disability and functional impairments. Each type of ischemic stroke is related to high rates of morbidity and mortality. [1,2]

According to the World Health Organization (WHO) in 1980, stroke is defined as "rapidly developing clinical signs of focal (at times global) disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin".

This phenomenon of sudden paralysis, which was firstly described by Hippocrates as apoplexy. Nowadays is also called cerebrovascular accident (CVA). [3,4,5]

The etiology of stroke is multifactorial as the interaction of many risk factors seems to be accountable for the development of this clinical syndrome. The risk factors or risk markers are classified according to their potential for modification into non-modifiable and modifiable risk factors. According to the vast majority of literature, non modifiable risk factors include age, sex, race/ethnicity, and family history. These factors increase the risk of stroke especially when other modifiable risk factors, re-occur. [3,4,5]

Age : It is widely accepted that stroke increases dramatically with age and it is more likely to affect the elderly. The risk doubles after the age of 55 years old to each successive decade. The majority of strokes occur at 7th decade of life and it rarely occurs at the ages below of 35 years old. [1,5,6]

Gender : Men have a higher risk of stroke compared to women and particularly, are 1.25 times more likely to suffer strokes than women. On the contrary, stroke is slightly more prevalent for women between the ages of 35 and 44 years old and over 85 years old. 60% of deaths from stroke occur in women which illustrates that stroke fatality rates are higher in women. This fact is possibly attributed to the longer life span that females have compared to males. Another possible explanation could be that when the protective role of female hormones fades after menopause, the risk of heart disease is increased. Moreover, additional stroke risk factors, such pregnancy, childbirth, oral contraceptive are unique to women. [1,5,6]

Race/ethnicity : Higher stroke rates are noted in African Americans, Hispanic Americans and the black race compared to the White one. Many researchers have suggested that this higher incidence is attributed to other co-existing risk factors in these races, such as hypertension, obesity and diabetes mellitus. Higher prevalence of stroke is also noted in the Chinese and Japanese population. [1,5,6]

Family history of stroke : Family history of both parents may be related to increased stroke risk. Genetic predisposition has been documented in humans and studies have shown that monozygotic twins have a 5-fold increase in stroke incidence compared to dizygotic twins. Moreover, the common familial exposure to environmental or lifestyle risks significantly contributes to the

pp:1-2
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development of this genetic tendency for stroke. [1,5,6]

Taken for granted that treatment after stroke is still limited, the ultimate goal of current stroke therapy is prevention. Although non-modifiable risk factors can not change, their assessment enables health professionals to identify individuals of high risk.

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