



A STUDY OF CLINICAL AND ETIOLOGICAL PROFILE OF STROKE IN YOUNG ADULTS

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ABSTRACT

Cerebrovascular disease is the most common life threatening neurological disease which up to some extent can be prevented and therefore is a concern in young patients especially in developing countries. This study aims to identify clinical profile, risk factors, aetiology, and radiological profile of patients presented with stroke between the ages of 15-45 years.

KEYWORDS : intracerebral haemorrhage, stroke in young, ischemic stroke

INTRODUCTION:

Early life factors like smoking, alcohol consumption, obesity are recognized as important factors to influence stroke risk and hence the determination of risk factors of stroke in young people is very important. Stroke was defined by World Health Organization criteria as rapidly developing clinical signs of focal, at times, global disturbance of cerebral function lasting for more than 24 hours or leading to death with no apparent cause other than vascular origin.^{1,2} The presence of risk factors in young patients seems to be increasing recently, and having those risk factors under control is essential to decrease the burden of stroke especially in young adults. Under such circumstances, primary prevention has to be emphasized to prevent the occurrence of strokes, which can be accomplished by monitoring the modifiable risk factors.³ Stroke affecting the young has potentially devastating consequences on the individual, his family and the society in general. Several studies have analyzed the risk factors of stroke in young, but considering its impact on younger generation, more studies are needed for identification and analysis of risk factors. Although various studies on stroke in young included subjects from second to fourth or fifth decade, in general, stroke in young includes subjects falling under the age group of 15-45 years.^{4,5,6,7} The aetiology may vary with different age groups. Though the traditional risk factors of stroke play a significant role in young age group also, the presence of high number of cryptogenic strokes, cardioembolic and venous stroke makes diagnostic evaluation in this age group more challenging. This study aims to identify clinical profile, risk factors, aetiology, and radiological profile of patients presented with stroke between the ages of 15-45 years.

AIMS AND OBJECTIVES:

To study the clinical and etiological profile of stroke in young adults.

MATERIALS AND METHODS:

This study was done in Basaweshwara Medical College, Chitradurga. This study was done from May 2006 to April 2007. A total number of 45 patients were selected.

Data was collected through a structured proforma, including history, examination and investigations. Relevant investigations like haemoglobin, total white cell count, erythrocyte sedimentation rate, urine routine, blood glucose, blood urea, serum creatinine, VDRL, serum lipid profile, bleeding time, clotting time, HIV, lumbar puncture for CSF analysis, ANA, APLA, Homocystiene, Chest X-ray, electrocardiography, echocardiogram, CT scan brain/MRI brain, were done for all patients, The results were analyzed to assess the aetiology, risk factors, and the pattern of clinical and radiological profile

RESULTS:

TABLE 1: Age Distribution:

Number of Patients	Mean Age	Standard Deviation
15-25	19.64 years	± 1.33 years
25-35	32.76 years	± 3.52 years
35-45	39.44 years	± 1.76 years

TABLE 2: Sex Distribution:

Number of Patients	Male	Female
15-25	01	Nil
25-35	07	01
35-45	31	05

TABLE 3: Risk Factors

Risk Factors	Frequency
Diabetes	01
Hypertension	41
Smoking	28
Alcohol Consumption	32
Congenital Causes	01
BMI (Obese)	08
Others	OC Pills (2)

TABLE 4: Test for Significance Hypertension

Total	X-Value	Significance (p=<0.05) (2 tailed probability)
41	0.428	Significant (0.001)

TABLE 5: Etiological Causes

Etiological Causes	Frequency
Emboli	02
Hypertension	41
Atherosclerosis	21
Post-Partum	01
Undetermined	01

DISCUSSION:

Smoking and alcohol consumption were important acquired risk factors for stroke among young. In alcoholic patients intracerebral hemorrhage was common. Diabetes mellitus, hypertension and hyperhomocysteinemia were modifiable risk factors commonly seen. Ischemic stroke was common in Diabetic patients. Intracerebral hemorrhage was common in hypertensive patients. Dyslipidemia like elevated LDL, total cholesterol, triglycerides and decreased HDL were common. Rare risk factors like Systemic lupus erythematosus, Antiphospholipid antibody syndrome should be considered during evaluation. Early life factors like smoking, alcohol consumption, obesity are recognized as important factors to influence stroke risk and hence the determination of risk factors of stroke in young people is very important. Several studies have analyzed the risk factors of stroke in young, but considering its impact on younger generation, more studies are needed for identification and analysis of risk factors. Although various studies on stroke in young included subjects from second to fourth or fifth decade, in general, stroke in young includes subjects falling under the age group of 15-45 years. Stroke was defined by World Health Organization criteria as rapidly developing clinical signs of focal, at times, global disturbance of cerebral function lasting for more than 24 hours or leading to death with no apparent cause other than vascular origin. The presence of risk factors in young patients seems to be increasing recently, and having those risk factors under control is essential to decrease the burden of stroke especially in young adults. Under such circumstances, primary prevention has to be

emphasized to prevent the occurrence of strokes, which can be accomplished by monitoring the modifiable risk factors. Stroke affecting the young has potentially devastating consequences on the individual, his family and the society in general. Several studies have analyzed the risk factors of stroke in young, but considering its impact on younger generation, more studies are needed for identification and analysis of risk factors.

CONCLUSION:

Although various studies on stroke in young included subjects from second to fourth or fifth decade, in general, stroke in young includes subjects falling under the age group of 15-45 years.

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