Title:

Stroke in Young Adults: Risk Factors in Relation to Gender and Race

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References:

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Abstract Summary:

Stroke is the third cause of mortality in U.S. and a major cause of morbidity and years of productive life lost when it occurs in younger people. This study compares the relationship between hypertension, hyperlipidemia, obesity and smoking between different gender and different racial groups with stroke in young age.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to compare the rate of hypertension and hyperlipidemia between male and female young stroke patients and between patients from different racial groups.	The analysis of data in sample will demonstrate the rate of hypertension and hyperlipidemia between male and female young stroke patients and between african-american and Hispanic groups with stroke in young age.

The learner will be able to compare the rate of obesity and smoking between male and female young stroke patients and between patients from different racial groups.	The analysis of data in sample will demonstrate the rate of obesity and smoking between male and female young stroke patients and between african-american and Hispanic groups with stroke in young age.

Abstract Text:

Background

The rate of stroke in younger age group is increasing significantly, with greater economic impact by leaving patients disabled for the rest of their life. The younger patients don't recognize the severity of stroke and practitioners are challenged with explaining the prognosis and consequences of stroke to patients and family members, as most of them assume stroke only occurs in old age. Primary stroke prevention guidelines recommend regular screening and treatment of risk factors for stroke. The increase in stroke incidence in young adults has been found to be associated with hypertension, hyperlipidemia, obesity and smoking (Koivunen, et al,. 2015). In addition to these modifiable risk factors, there is a difference in race and gender with stroke in young age. All minority groups, including Native Americans, Hispanics, and African Americans, face a significantly higher risk for stroke and death from stroke than Caucasians (Trivedi, Ryan, & Cole, 2015). African Americans have twice the risk for first-time stroke as Caucasians (Trivedi, Ryan, & Cole, 2015). Younger African Americans are two to three times more likely to experience a stroke than their Caucasian peers and four times more likely to die from one (Pathak & Sloan, 2009). Stroke in young adults is relatively uncommon, but studies suggest that the incidence of stroke in young adults is growing. In a systematic review of 15 population-based stroke incidence studies, the rate of total stroke for those aged less than 45 years ranged from 0.1–0.3 per 1000 person years, while for those aged 75–84 years, the range was 12–20 per 1000 person years in most studies (Feigin, et al,. 2003). However, the impact of stroke on the individual family and society is strongest when it affects a young individual.

Primary stroke prevention guidelines recommend regular screening and treatment of risk factors for stroke. However, to date, there are no specific recommendations for primary stroke prevention for the younger population. The findings from this study could add to the recommendations for primary prevention of stroke among young adults. Although hypertension, hyperlipidemia, obesity and smoking are the known risk factors of stroke, the relationships between these risk factors and gender and race among young stroke patients are not clear. By identifying modifiable risk factors in younger people, different disciplines can partner together to reduce the incidence, morbidity, and mortality associated with stroke in younger adults. Control of hypertension and hyperlipidemia, promotion of exercise and healthy diet, and smoking cessation are particularly important in younger people. Recognition of stroke symptoms in younger people, timely access to emergency evaluation and treatments may determine stroke outcomes in young ages. The present study will provide some valuable information on the distribution of risk factors in stroke patients in young age with different genders and races. The identification of risk factor profiles in different groups of stroke patients is essential before considering the etiologic preventive strategies. The finding of this study will suggest the priority in stroke prevention for young adults to change their lifestyles such as giving up smoking and loss weight. As for younger adults, it is much more important to treat risk factors such as hypertension and hyperlipidemia to prevent the devastating consequences of stroke.

Objectives

The purpose of this study is to compare the rate of hypertension, hyperlipidemia, obesity, and smoking between male and female young stroke patients and between patients from different racial groups.

Methods

Using descriptive-correlational design, this retrospective chart review study will include patients 18 to 50 year old with a confirmed diagnosis of stroke in two hospitals in Northern Virginia. Independent variables include gender and race. Dependent variables include hypertension, hyperlipidemia, obesity and smoking. Demographic characteristics are age and marital status. Clinical characteristics in this study include: type of stroke, results of CT, MRI, CT Angiogram/ CT Perfusion, Patent Foramen Ovale (PFO), Atrial Fibrillation (Afib), and hypercoagulable state. A convenience sample of 180 patients will be obtained; and this will provide 80% power to detect a moderate effect size of Phi of 0.3, with alpha of 0.05. Descriptive statistics will be performed on all study variables. Chi-square analysis will be performed to study the relationship between the independent and dependent variables.

Results in process

Conclusions in process