COMPARISON OF RISK FACTORS OF MYOCARDIAL INFARCTION AND CEREBROVASCULAR ACCIDENTS

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EXECUTIVE SUMMARY

A CVA or Stroke occurs when the arterial blood flow leading to or in the brain becomes blocked or ruptures. There are two broad categories of strokes, called ischemic stroke or hemorrhagic stroke. Hemorrhagic stroke is the bleeding into the brain or the spaces surrounding the brain, which is caused by a number of disorders that affect the blood vessels (i.e., high blood pressure and cerebral aneurysm). There are two types of hemorrhagic stroke: subarachnoid and intracerebral. A heart attack, or myocardial infarction, occurs when one of more regions of the heart muscle experience a severe or prolonged lack of oxygen caused by blocked blood flow to the heart muscle. There are two types of risk factors for heart attack, including Inherited (or genetic) or acquired.

The question arises why some people are affected with MI while some others affected with CVA. So we have decided to compare the risk factors of both and find out statistically which all risk factors are more associated with MI and which all with CVA by doing a cross sectional study with case-control analysis.

This study was conducted at the Department of Cardiology wards and the weekly Stroke Clinic at the department of Physical Medicine and Rehabilitation, Govt. MCH, Thiruvananthapuram from October to December, 2007. The objective of the study is to compare the risk factors of CVA and MI and predict whether a particular risk factor predisposes more to MI or CVA. The methodology opted was a cross sectional study with case control analysis using a structured questionnaire as tool. The shortcomings of the study can be attributed to small sample size and inadequate sampling techniques. The statistically significant variables resulting from the study were smoking, duration of smoking, history of TIA, history of CVA, History of MI and history of afternoon rest. I was analyzed with SPSS software.

CONCLUSION

Out of the various variables taken into study, the following were found to be statistically significant:

- Smoking
- Duration of smoking.
- Afternoon sleep.
- History of TIA
- History of CVA
- History of MI

Smoking, previous history of MI and history of angina were important predisposing factors for MI, while history of TIA was an important predisposing factor for CVA as per univariate analysis.

As per multivariate analysis, duration of smoking was found to be a significant variable in MI, while afternoon rest, TIA and varicosity were significant and predisposed to CVA.

Recommendations

From this study we could understand the difference in risk factors of MI and CVA. We can predict whether a particular person exposed to a particular risk factor is going to have higher chance of CVA or MI and then take the necessary precautions like, regular CNS check up or regular Cardiac check up based on the risk factor.

The study throws some light into the risk factors which cause either CVA or mi. Both are causes of morbidity and mortality through out the world. So prevention of the avoidable risk factors the ones listed below can bring down the cases of CVA or MI considerable.

The avoidable risk factor from the study is smoking. The duration of smoking is also significant, so a current smoker can reduce his own risk by quitting this habit. Individuals with history of MI is having a higher risk of developing another one, so be on the look out for chest pain and consult a doctor as and when required. Those with history of TIA or CVA have a greater chance of developing CVA. So they need to take necessary precautions.