

Correlation Between Lipid Profile And Carotid Artery Plaque In Ischaemic Stroke Patients



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Introduction

- Stroke is the third most common cause of death after coronary artery disease and all cancers.
- It is the main cause of neurological disability today.
- The incidence of stroke rises steeply with age and adoption of less healthy lifestyles.
- The most important risk factors of stroke are HTN, CHD, atherosclerosis, dyslipidaemia and DM.
- Dyslipidaemia and atherosclerosis have got important associations between them.



General Objective

- To observe the frequency of carotid artery plaque in ischaemic stroke patients and its correlation with dyslipidaemia

Specific Objectives

- To observe the demographic profile of ischaemic stroke patients.
- To observe the incidence and thickness of carotid artery plaque in ischaemic stroke patients.
- To estimate the lipid profile in ischaemic stroke patients.
- To detect the correlation of carotid artery plaque with dyslipidaemia.

Methodology

- **Study type:**
Descriptive cross sectional study.
- **Study time:**
Two years
- **Study place:**
Department of Medicine and Neuromedicine, Rajshahi Medical College Hospital, Rajshahi.
- **Patients:**
Patients presented with ischaemic stroke.
- **Sample size:**
235
- **Sample procedure:**
Purposive sampling method.

Results

- Data of 50 cases with cerebral infarction were recorded.
- Most of the patients had more than one risk factors for cerebral infarction.
- Hypertension was the commonest risk factor (74%), followed by smoking (68%), carotid artery stenosis (58%), dyslipidaemia (48%), diabetes mellitus (42%), family history of stroke (34%), obesity (22%),
- Male gender were predominant than female (80% Vs 20%) and mean age (\pm SD) was 61.72 ± 11.31 years.

Results

- The frequency of significant carotid artery plaque in acute ischaemic stroke patient was on right side 52%, on left side 40% and on both side 34%.
- Left internal carotid artery showed minor positive correlation with serum cholesterol, LDL cholesterol and HDL cholesterol ($r=0.081$, $p=0.57$) and Right internal carotid artery showed similar minor positive correlation with LDL and HDL cholesterol ($r=-0.038$, $p=0.79$) but both arterial plaque had insignificant association with dyslipidaemia.

Conclusion

- Ischaemic stroke patients have frequent carotid artery plaque.
- Ipsilateral plaque is more common than contralateral.
- Stroke patients have significant lipid abnormality.
- Dyslipidaemia is more associated with carotid artery plaque formation.
- Left internal carotid artery plaque showed less significant association with serum total cholesterol, LDL cholesterol and low HDL cholesterol. Right internal carotid artery plaque showed less significant association with LDL and low HDL cholesterol.

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THANK YOU