



Journal Homepage: -www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI:10.21474/IJAR01/13381
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/13381>



RESEARCH ARTICLE

CORRELATION BETWEEN C- REACTIVE PROTEIN AND LIPID ABNORMALITIES IN SUBJECTS WITH ISCHEMIC STROKE

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Manuscript Info

Manuscript History

Received: 05 July 2021

Final Accepted: 09 August 2021

Published: September 2021

Abstract

Cerebrovascular accident, which has considerable mortality and morbidity,deservesattention towards its prevention. The first lines of defense in stroke prevention are detecting and adequately treating manageable risk factors, C-Reactive protein, an acute phase reactant is an indicator ofunderlying systemic inflammation and a novel marker for atherothrombotic disease. Present study is an attempt to study the levels of C-Reactive protein in acute thromboembolic stroke and to correlate between serum C Reactive protein levels and lipid profile in acute ischemic stroke.

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Introduction:-

Cerebrovascular accident, which has considerable mortality and morbidity,deservesattention towards its prevention. The first lines of defense in stroke prevention are detecting and adequately treating manageable risk factors, C-Reactive protein, an acute phase reactant is an indicator ofunderlying systemic inflammation and a novel marker for atherothrombotic disease. Present study is an attempt to study the levels of C-Reactive protein in acute thromboembolic stroke and to correlate between serum C Reactive protein levels and lipid profile in acute ischemic stroke.

Methods:-

Fifty patients with diagnosis of first ever acute ischemic stroke and twenty healthy age and sex matched controls were randomlyselectedfor thiscase-control cross sectionalstudy conducted from June 2019 to January 2021. Patients were examined, investigated. In both cases and controls lipid profile (fasting) and CRP levels wereestimated.

Results:-

There were 33 (66%) cases and 3 (15%) controls who had positive C-Reactiveprotein levels (0.6 mg/dL). Mean CRP levels among cases was 3.7 mg/dL and controls was 0.5 mg/dL, which was statisticallysignificant (p < 0.05). Mean serum totalcholesterol values were significantly higher in cases compared to controls (179.2 vs. 161)mg/dL (p < 0.05).

Patients who had positive C-Reactive protein levels (> 0.6 mg/dL) had meanserum total cholesterol higher than thosecompared with negative C-Reactive proteinlevels (< 0.6 mg/dL) => (181.4 vs 174.83) which was statistically significant.

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Interpretation and Conclusion:-

C-Reactive protein appears to be an important risk factor for acute thromboembolic stroke at levels of > 0.6 mg/dL. Total cholesterol was significantly higher in cases of acute thromboembolic stroke than controls. There appears to be a positive correlation between CRP levels and serum total cholesterol, levels and no significant correlation between C-Reactive protein and other lipid parameters – HDL, triglycerides, LDL, in cases studied.