



SERUM LIPID PROFILE AS A PREDICTOR OF SEVERITY IN DENGUE FEVER: A CROSS-SECTIONAL STUDY FROM A SOUTH INDIAN TERTIARY CARE CENTRE

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ABSTRACT

Background: Dengue fever is a mosquito-borne viral illness with variable clinical severity. Early prediction of severe forms such as dengue hemorrhagic fever (DHF) or dengue shock syndrome (DSS) remains challenging. Lipid profile alterations have emerged as potential biomarkers. **Objective:** To study serum lipid profile abnormalities in dengue infection and their association with disease severity. **Methods:** A hospital-based cross-sectional observational study was conducted on 87 serologically confirmed dengue patients admitted between August 2022 and December 2024. Lipid parameters were compared across WHO-classified dengue subtypes: dengue fever (DF), dengue with warning signs (DWS), and severe dengue (SD). Statistical significance was assessed using ANOVA and ROC curve analysis. **Results:** Among 87 patients, 77% had elevated total cholesterol, and 65.5% had low HDL levels. LDL and triglyceride levels were significantly associated with increased severity ($p=0.04$ and $p=0.007$, respectively). ROC analysis identified LDL (AUC=0.679) and total cholesterol (AUC=0.652) as predictors of severe disease. D-dimer, NLR, and PCT were also significantly elevated in severe cases ($p<0.001$). **Conclusion:** Lipid profile abnormalities, particularly elevated LDL and triglycerides, are associated with dengue severity and can serve as cost-effective biomarkers for early risk stratification.

KEYWORDS : Dengue, Serum Lipids, Triglycerides, LDL, Biomarkers, Dengue Shock Syndrome, Prognostic Markers

INTRODUCTION

Dengue is a rapidly spreading arboviral infection endemic in tropical countries.

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METHODS

Study Design: Cross-sectional observational study...
Setting: Kanachur Institute of Medical Sciences, Mangalore, India.

RESULTS

Among 87 patients, 77% had elevated total cholesterol, and 65.5% had low HDL levels.

DISCUSSION

Our findings align with studies by Ravi et al.

CONCLUSION

Serum lipid profile, especially LDL and triglyceride levels, can serve as accessible, low-cost markers.

Ethical Considerations

Ethics approval was obtained from the Institutional Ethics Committee...

Conflicts Of Interest

None declared.

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