



**VARIABILITY OF HDL LEVELS AND THEIR ASSOCIATION IN PATIENTS WITH  
DEPRESSED SYMPTOMS**

**RANADE JAY R<sup>1</sup>, INAMPUDI SAILAJA<sup>2</sup> AND IVVALA ANAND SHAKER<sup>3</sup>**

**1:** Post Graduate Student, Department of Biotechnology, Parul Institute of Applied Sciences,  
Parul University, Limda, Waghodia, Vadodara-391760

**2:** Professor & Head, Department of Biochemistry, Parul Institute of Applied Sciences, Parul  
University, Limda, Waghodia, Vadodara 391760

**3:** Professor & Head, Department of Biochemistry, Parul Institute of Medical Science and  
Research, Parul University, Limda, Waghodia, Vadodara 391760

\* Corresponding Author: E Mail: Dr. Ivvala Anand Shaker: [ivvala.shaker@paruluniversity.ac.in](mailto:ivvala.shaker@paruluniversity.ac.in)

Received 20<sup>th</sup> Jan. 2020; Revised 27<sup>th</sup> Feb. 2020; Accepted 29<sup>th</sup> March 2020; Available online 1<sup>st</sup> Sept. 2020

<https://doi.org/10.31032/IJBPAS/2020/9.9.5176>

**ABSTRACT**

**Background and Objective:** Deregulated levels of lipid profile are associated with different mental disorders. Even though no clear outcomes have been published to clarify the association. Number of articles does indicate varying outcomes for relation of lipid profile and depression. Yet comparatively there is less number of literatures published in India for the association study of these parameters and those studies which have been published had some limitations and shows contradicting results. With this thought to elucidate more specific results for Indian subpopulation we have done this study. The aim of this study was to correlate HDL levels in healthy and depressed patients.

**Methodology:** A total of 78 patients coming to Parul Sevashram Hospital, Vadodara. Depression symptoms were diagnosed with Hamilton Depression Scale. The study population was divided into age group of 20-39 and >39. After taking the consent of patients blood was drawn by a nurse and after serum isolation lipid profile was checked.

**Result:** Higher mean HDL levels were observed in depressed patients compared to healthy controls with 0.001 significance. We further show that higher mean HDL levels in male depressed patients with  $p=0.008$  and lower mean levels of HDL in females with 0.04 significant differences.

**Interpretation and Conclusion:** Higher HDL level was observed among the study groups with significant ( $<0.05$ ) difference with It can be predicted that females are at more risk for having higher HDL in depressive state. Considering the low study sample additional investigation and replication of study with large sample size is required.

**Keywords:** Depression, HDL, LDL, Hamilton Depression Scale, Lipoproteins 2191