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CERULOPLASMIN-ALBUMIN RATIO AS A BIOCHEMICAL MARKER FOR THE DIAGNOSIS OF TUBERCULOSIS

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ABSTRACT

Tuberculosis is a leading cause of death among infectious diseases. This study aimed to illustrate the association between Ceruloplasmin-Albumin ratio and TB. This work involves sixty confirmed TB cases admitted to the TB center in Hilla city-Iraq. Also 20 apparently healthy subjects were used as control. Sera were collected from each patients and control. Ceruloplasmin and Albumin were biochemically estimated. The results showed that there significant ($p < 0.05$) increasing in Ceruloplasmin-Albumin ratio in TB patients as compared to control. This results give a clear evidence for the association between Ceruloplasmin-Albumin ratio and TB.

Keywords: Tuberculosis, Ceruloplasmin-Albumin Ratio

INTRODUCTION

Tuberculosis (TB) remains a leading cause of mortality in the world. It is reported that more than two billion people about one-third of the world population were estimated to be infected with Mycobacterium tuberculosis **[1]**. Ceruloplasmin (about 160 kDa), is an α 2-globulinfraction of human blood serum which encoded by the CP gene and synthesized mainly in the liverand subsequently found in plasma, but extra hepatic gene expression has been documented for this protein. Among the organs expressing ceruloplasmin gene are the brain, lung, spleen, and testis. It contains 90-95% of serum copper and the blue color of ceruloplasmin is attributed to its high copper content **[2]**.

Ceruloplasmin exhibits a copper-dependent oxidase activity, but its physiologic significance has not been clarified. The amount of ceruloplasmin in plasma is