

Serum Proteins and Diseases: A Qualitative and Quantitative Approach

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ABSTRACT The development changes of the total proteins and the polymorphic nature of the various fractions of the proteins have been discussed in order to understand their biochemical and pathological mechanisms. The normal concentration of α_2 -antitrypsin (130mg/dl) is generally elevated in response to inflammation and tissue damage. Higher levels have been observed in patients of sarcoidosis, leprosy, tuberculosis and carcinoma. A quantitative relationship between infarction size and the increase in haptoglobin levels has also been reported. No significant association has been observed between ceruloplasmin and tuberculosis. Reduced levels of C₃ have been shown to be associated with a number of diseases, such as glomerulonephritis, systemic lupus erythematosus, extra renal diseases, leprosy and fatal acute respiratory infections. The synthesis of transferrin is inhibited in inflammation which is evidence for the decrease in transferrin's concentration and of the physiological and biochemical determinants of the potential genetic resistance and susceptibility of mycobacterial infection may provide clue of its pathogenesis, thereby facilitating its prevention and treatment.