PDF - DETERMINING THE SERUM PROTEIN LEVELS AND CIC LEVEL IN CEREBRAL MALARIA PATIENTS - researchcub.info**1.0 INTRODUCTION**

Malaria is a febrile illness characterized by fever and related symptoms (WHO, 1990).

It is a disease caused by a blood borne protozoan parasite which is an intracellular parasite belonging to the class Sporozoa and of the genus Plasmodium and it is transmitted through the bite of an infected female anopheles mosquito (CDC, 2002). There are four different parasites of this genus which may give rise to malaria in man.

Malaria is probably one of the oldest diseases known to mankind that has profound impact on our history. History of malaria and its terrible effects is as ancient as the history of civilization, therefore history of mankind itself (Ray et al., 1992). This ancient disease is still the scourge of the tropic and subtropics Africa, the Middle East, Asia and China and Central and South America are all endemic zones with tens of Ilion cases annually (Lucas, 1992).

Plasmodium falciparum is one of the genus and cause the most ere and virulent form of the disease and the only one to cause acute ality. In this study *Plasmodium falciparum* will be on focus since it is most prevalent in Nigeria. This genus of malaria spend a part of their cycle in the red cell of the host where the erythrocyticschizogony. They develop into merozoites and undergo a cycle producing schizonts.

Each cycle terminates when the red cell rupture releasing merozoites into the circulation to infect new red cells eliciting an immune response.

Malaria infection leads to the formation of circulating immune complexes (Mibei*et al.*, 2005). The importance of circulating immune complexes (CIC) and their relationship to various diseases has been the subject of investigation for number of years. Formation of immune complexes is a protective, on-going and usually benign process of a normally functioning immune system. However, in some individual CIC are deposited in the walls of blood vessels, especially in the glomerular capillaries where they cause tissue damage.

The biospecific binding between sites of the antibody and the determinant group of the antigen result in the formation of antigen-antibody complex (AgAb) known as immune complexes (McDougal and McDuffie, 1985). Since malaria has been known to cause mortality this study is aimed at assessing the magnitude of circulating immune Complexes and some biochemical parameters which include serum total rein, albumin and globulin.

1.1JUSTIFICATION

The science of immunology have suggested the use of CIC to measure variety of clinically oriented condition, this current studies ,suggest that CIC determination can be important in the evaluation of in disease and sometimes in monitoring the efficiency of therapy.

Studies have suggested that plasma protein pattern is frequently abnormal in patients with acute malaria and disturbance in immune responses makes the disease a major cause of morbidity and mortality in patients with malaria.

There is therefore need to determine CIC and serum proteins in patients suffering from malaria with a view to understand the pathology of the infection.

1.2 OBJECTIVES OF THIS STUDY

This study is aimed at:

Determining the serum protein levels and CIC level in cerebral malaria patients, those currently on treatments, severe malaria and apparently healthy individuals.

Comparing the level among the different groups studied.
Making recommendations based on the results obtained and use of CIC in the diagnosis of malaria.

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