



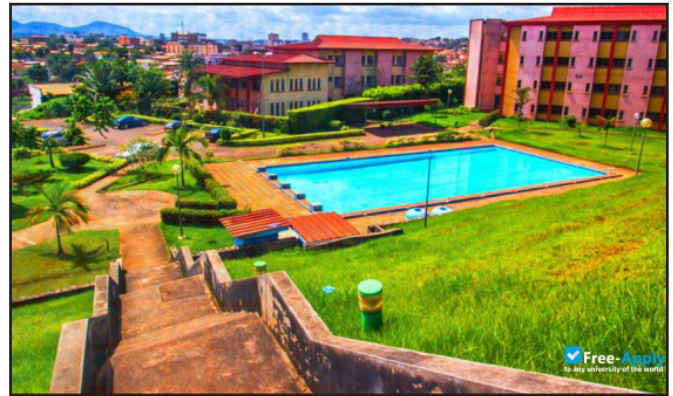
## Involvement of Fas receptors (CD95) and Ligands (CD95L) in CD4+, CD8+ T-cell Depletion and Hepatic Cytolysis in Patients with Chronic Viral Hepatitis B

Franklin S. Azebaze

*University of Yaounde, South Africa*

### Abstract:

Chronic Viral Hepatitis B (VHB) is characterized by a progressive destruction of hepatocytes and T-lymphocyte depletion. The mechanisms of the CD95-CD95L signaling pathway during chronic VHB and cirrhotic process remains unclear. Our objective was to evaluate the involvement of the CD95-CD95L receptor-ligands in T-lymphocyte depletion and hepatic cytolysis in patients with chronic VHB. A cross-sectional study was conducted from September to December 2018, at the Yaoundé General Hospital, Cameroon. Four milliliters of blood were collected and analyzed. The CD95, CD95L levels and CD4+, CD8+ T-cell counts were performed by ELISA and Flow cytometry, respectively. The data were analyzed using EpiInfo 7.0 and GraphPad PRISM 5.0, with the significant threshold set at  $p \leq 0.05$  and a 95% confidence interval. Of the 130 patients, 36 (27.7%) were cirrhotic, and 94 (72.3%) were non-cirrhotic. The plasma level of CD95 and CD95L were significantly elevated in cirrhotic patients, compared with non-cirrhotic patients ( $p < 0.001$  and  $p = 0.001$  respectively). CD4/CD8 ratios were lower in cirrhotic patients, compared with non-cirrhotic patients ( $p < 0.001$ ). There were statistically significant correlations between CD95 and CD4+, between CD95 and CD8+, between CD95 and CD4/CD8 ratio, between CD95 and fibrosis scores and between CD95L and fibrosis score. CD95-CD95L could be involved in T-lymphocyte depletion and hepatic cytolysis during the pathogenesis of chronic VHB, and could be used as biomarkers for immunological and hepatic monitoring in



patients with chronic VHB.

### Biography:

Azebaze Agueguia Franklin Steve is a research student, passionate about immunology, who is motivated by the understanding of the immunological mechanisms involved in pathologies, in order to improve the health status of the world population

### Recent Publications:

1. Maryam, K., Seyed, M., & Heidar, S. (2015). Comparison of Serum Hepatitis B Virus DNA and HBsAg Levels Between HBeAg-Negative and HBeAg-Positive Chronic Hepatitis B Patients. *Jundishapur Journal of Microbiology*, 8(3), e21444.

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