

11th International Conference on

Medicinal Chemistry & Pharmaceutical Technology

April 01-02, 2019 | Prague, Czech Republic

Effects of *Spirulina platensis* on the immune status, anti-inflammatory and oxidative markers in HIV patients on antiretroviral therapy in Cameroon

Background & Aim: *Spirulina platensis* is traditionally used as a food supplement with a potential strengthening of the immune system, inhibition of the replication of some viruses, and lipid-lowering. The aim of this study was to determine its anti-inflammatory, immunologic, and anti-oxidative effects in HIV patients on antiretroviral therapy (ART).

Methods: We performed a clinical trial on 62 HIV patients on ART (Tenofovir-Lamivudine-Efavirenz) divided into two groups. Group I supplemented with 10 grams of *Spirulina platensis* daily, and group II receiving dietary advices. Participants were followed for six months, from December 2015 to June 2016. Each group were sampled for CD4-count, viral load, serum levels of interleukins 6 and 8, TNF α and oxidative markers (malondialdehyde, FRAP, catalase, total peroxides, superoxide dismutase, glutathione peroxidase, reduced glutathione) at the beginning (T0) and the end of the trail (T1). Ethical clearance was obtained from the national committee on ethics of human health research in Cameroon (Ref 2016/01/699/CE/CNERSH/SP). Statistical analysis was performed using the software SPSS 18.0. The threshold of significance was set at 0.05.

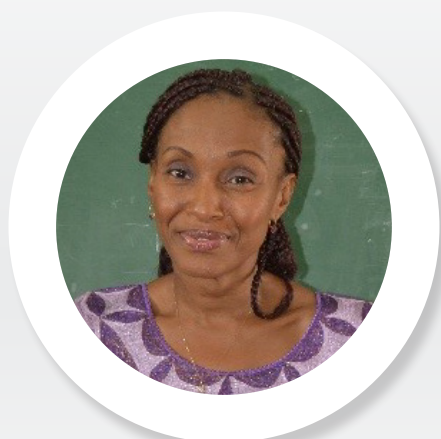
Results: Mean ages of participants were 35 \pm 8 and 37 \pm 7 respectively for group I and II. We observed a significant decrease in viral load in patients receiving *Spirulina* comparing at T0 and T1 ($p=0.04$), and as compared to participants in group II ($p=0.01$). CD4-count was unchanged. There was a significant reduction of IL8 and TNF α levels in both groups but not statistically related to the supplementation. The levels of pro-oxidative markers have significantly decreased and antioxidant levels significantly increased in group I, compared to group II.

Conclusion: Daily supplementation of *Spirulina platensis* could improve the immune status of HIV patients on ART, and decrease inflammatory and pro-oxidant levels.

Biography

Ama Moor Vicky Jocelyne is a Medical Doctor since 17 years; specialized in Clinical Pathology since 10 years and received her PhD degree in the year 2018 from University of Yaounde in Cameroon. She is working on Dyslipidemia Occurrence in Cameroon, and has interest on *Spirulina platensis* a microalgae with a lot property. She is Associate Professor in the Department of Biochemistry, Faculty of Medicine and Biomedical Science at the University of Yaounde. She has published more than 45 papers in reputed journals.

movicky@yahoo.fr



Ama Moor Vicky Jocelyne
University of Yaounde, Cameroon

Co-Authors

Pieme Constant Anatole¹, Biapa Nya Cabral Prosper², Ikomey Georges¹, Okomo Cécile¹, Nkeck Jan Rene¹ and Ngogang Yonkeu Jeanne¹

¹University of Yaounde, Cameroon

²University of Dschang, Cameroon

Notes: