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Virology & Immunology Journal
ISSN: 2577-4379

About Covid-19 Infection in Côte d'Ivoire, West Africa

YAPO-CREZOIT C* and Dosso M

Immunology Lab, Pasteur Institute of Côte d'Ivoire, Abidjan, Côte d'Ivoire

***Corresponding author:** Yapo-Crezoit Chiaye, Immunology Lab. Pasteur Institute of Côte d'Ivoire, Abidjan, Côte d'Ivoire, Email: yapoant1@gmail.com

Editorial

Volume 5 Issue 1

Received Date: December 31, 2020

Published Date: January 12, 2021

DOI: 10.23880/vij-16000262

Abstract

New coronavirus, SARS-CoV-2 is now in African countries especially in Côte d'Ivoire. The original mission of Pasteur Institute of Côte d'Ivoire, is the management of immune and transmissible diseases. It is an research institute supporting the health system. Like all the other countries in the world, it must support the control of the collective response to pandemics.

Keywords: Covid-19; Côte d'Ivoire

Editorial

Côte d 'Ivoire has just notified its first case at March 11th, 2020. In April 11th to May 6th respectively, 533 to 1516 cases were confirmed with 58 to 721 declared cured and 4 to 18 death [1,2]. At the end of the year, on December 25, 2020, only 133 cases of death have been recorded since the beginning of the pandemic among 22081 confirmed cases, including 21697 cases declared cured and 251 cases in therapy [3].

It is one of the countries without Ebola epidemic despite two of the three hardest hit countries (Guinea and Liberia) border on it [4]. It should be noted that Côte d'Ivoire has benefited from last ten years a large mass vaccination campaigns with conventional vaccines but also with new combination vaccines [5,6]. Many infectious and others diseases (malaria, hepatitis, HIV, tuberculosis, metabolic and cardiovascular diseases etc.) still persist [7]. The public hospitals are often failing as a result of two politico-military crises of 2002 and 2011. The majority of the population is younger. Thus, 77.3% of the total population, or slightly more than 3 out of 4 people, are under 35 years of age. This extreme youthfulness of the population is reflected in an age pyramid with a very broad base, which, moreover, changed very little between 1998 and 2014 [8]. The poverty line is not negligible, a demographic boom has been observed coupled with the promiscuity of the shantytowns; also, water, nutrition and energy peril remain. Despite a low literacy rate, general health prevention measures have been applied by all sections of the population to fight Covid-19 infection: self-confinement, barrier gestures, wash hand equipment in public and private places particularly on several populated market and car station, compulsory wearing of masks made by craftsmen or individuals, and a state of emergency that prohibiting inter-city moving population, confirmation of diagnosis used PCR test. Based on these observations, what could be the hypotheses for research in this area of West Africa? Firstly, Do the other target organs (heart, brain, kidney...) have a cellular impact similar to those of the lungs or not in the Ivorian population reducing mortality from Covid-19 infection? Do SARS-CoV-2 use molecular mimicry as an escape mechanism to maintain tolerance of immunity facilitating its spread [9]?. How dendritic cells that are at the interface between innate and adaptive immunity could be used in this process of over-inflammatory reaction, probably severe self-inflammation. Covid-19 seems induced self-attack, auto inflammatory transient or persistent aggravating the clinical picture [10]?. Consideration should be given to exploring autoimmunity by incorporating it into the Covid-19 biomarker set... [11].

Secondarily, does the hygienist theory still valid with new environmental issues? Professor Philippe-Sansonetti affirms that of course the major diseases "of yesterday's world" will gradually be controlled, at least in the countries of the North; but the increase in the world population, the societal changes, their impact on the environment through the intensification of agriculture, animal husbandry and trade, will create the conditions for a renewal and an acceleration of 2 emergences and infectious re-emergences that could be described as "diseases of the post-modern world". Similarly, the effects of global warming are becoming a scientific priority requiring the intervention of a medical anthropologist who helping medical teams to adapt their actions to local cultures and avoid fake news [12]. Thirdly, do the immunological memory of African populations more active with repeated infestations, offering additional protection with a possibility of protected cross-reaction combining with several large immunization campaign or is it the existence of another variant of SARS-CoV-2 or existence of efficiency community mobilization or under case notification or genetic factor ?. Antimalarial treatment with chloroquine could save lives in this geographical area of malaria endemicity where resistance to this old molecule has existed?. Do malaria infection and haemoglobinosis S form a protective barrier against Covid-19 Infection. The African pharmacopoeia research should be encouraged, and adapted, opening the hope of an antiviral therapy for this pandemic in spite of the many vaccine strategies being used around the world [13-17].

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