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Medicinal synthetic Aluminum-magnesium silicate $\{Al_4(SiO_4)_3 + 3Mg_2SiO_4 \rightarrow 2Al_2Mg_3(SiO_4)_3\}$: A highly active anti-retroviral medicine

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Molecules of aluminum-magnesium silicate (AMS) are made of platelets with negative electrical charges on their surfaces and positive charges on their edges while every virus has either net positive electrical charges or net negative electrical charges. HIV is positively charged. AMS is safe for use as a medicine. Its negative and positive electrically charged ends make it a broad-spectrum antiviral agent, because, it uses surfaces of its molecular platelets to inhibit positively charged viruses and uses the edges to inhibit negatively charged viruses. When significant percentage of infecting viruses is inhibited by AMS, immunity completes termination of the infections. Also, platelets of AMS molecules are nanoparticles. Ultra small size of the platelets makes it possible for them to pass physiological barriers. So, AMS-Nanoparticles reach viruses in every organ. Affinity of nanoparticles for abnormal (infected and cancer) cells makes AMS able to adsorb onto and destroy HIV-infected cells. That means that even HIV “hidden in cells” are exposed and adsorbed out. Mopping out HIV from blood and the organs means that millions of new viral particles, released from infected cells are prevented from establishing new foci of the infection. Thus, acquired immune-deficiency syndrome (AIDS) stage is prevented. Preventing AIDS gives immune responses advantage over the infection. Nigeria does not have AMS, as a natural resource, but there is abundance of aluminum silicate and magnesium silicate in the country. These two minerals which are also safe medicines, were reacted to get a purer form of AMS. Dextrose monohydrate was incorporated in the synthetic AMS, to carry its molecules across mucous membranes of gastro-intestinal tracts, into blood, which carries them to all organs and tissues. *In vitro*, the medicinal synthetic AMS (MSAMS) has inhibited viruses of six families, including *Retroviridae*. It has also been used to cure animals challenged with different viruses. The MSAMS was therefore, used for trial-treatment of HIV/AIDS patients. Plasma samples from the volunteers were tested for viral loads before the treatment and then, repeatedly, during the clinical trial. For four weeks, they were treated with: the MSAMS (50 mg/kg), MSAMS-stabilized Ampicillin trihydrate (7.5 mg/kg) and immune stimulants. After the first 4 weeks, the treatment was reduced to 50 mg/kg (MSAMS) and immune stimulants. This regime continued till four weeks after each patient’s viral load dropped below 50/ml. Mean viral load of the patients increased ($P=0.006$) from 498.50 ± 33.37 to $1,072.50 \pm 184.55$ after 3.75 ± 2.06 weeks of the treatment, suggesting that it exposed “HIV hidden in cells”. Then it reduced to 407.33 ± 297.27 ($P=0.04$) when duration of the treatment increased to 6.67 ± 2.31 weeks. Prolonging the medication for 10.40 ± 6.10 weeks, led to 98.61% reduction of the viral load, from $19,500.00 \pm 29,580.00$ to 270.80 ± 412.80 ($P=0.004$). Two of the patients had their viral loads reduced to 40/ml and 44/ml, respectively (below 50/ml). They are still healthy, ten and sixteen months after the treatment. What remains is to confirm their HIV status by an antigen test, instead of testing for antibodies, because, viral antibodies can remain in blood, long after termination of infections.

Biography

Maduiké, C. O. Ezeibe is a Nigerian. He is a professor of Veterinary medicine in the Department of Veterinary Medicine, Michael Okpara University of Agriculture, Umudike-Nigeria and a graduate of University of Nigeria, Nsukka from where he obtained Doctor of Veterinary Medicine Degree (DVM), M.Sc and Ph.D. He is also a fellow of College of Veterinary Surgeons, Nigeria (FCVSN). Prof Ezeibe has won many academic prizes, including: best student in Veterinary microbiology, pathology, public health and jurisprudence and in Veterinary clinics. In 2011 he won Nigerian government’s presidential standing committee award, for invention of Medicinal synthetic Aluminum – magnesium silicate (Nanoparticles)- a broad-spectrum antiviral medicine which has proved effective against Avian influenza virus, Measles virus, Newcastle disease virus, Peste des petits ruminants virus, Infectious bursal disease virus, Egg drop syndrome 76 virus, Avian pox virus and Canine parvovirus. For virology 2015, Professor Ezeibe shall discuss: Clinical trial of antiretroviral effects of the Medicinal synthetic Aluminum – magnesium silicate (Nanoparticles).

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