

## REPORTS ON PROSTATE-TUMOR CASES, PLACED ON MEDICINAL SYNTHETIC ALUMINUM MAGNESIUM SILICATE $\{Al_4(SiO_4)_3+3Mg_2SiO_4 \rightarrow 2Al_2Mg_3(SiO_4)_3\}$

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### ABSTRACT

Physically-acting tumor medicines should be ultra-nanoparticles (reaching all metastasis-cells). Tumor cells are negatively charged while normal cells remain without charges (biomedical marker). So, opposite charges` electrostatic-attraction would be tumor-treatment mechanism. Molecules of Aluminum-magnesium silicate (AMS), approved pharmaceutical stabilizing agent, consist of *nanoparticles* (0.96 nm) which have positively/negatively charged ends. Therefore, AMS mops tumor cells and enhances immunity & antimicrobials` efficacies (curing secondary infections) so that benign tumors and cancers regress. Countries that do not have AMS  $[Al_2Mg_3(SiO_4)_3]$  may have Aluminum silicate [AS:  $Al_4(SiO_4)_3$ ] and Magnesium silicate [MS:  $Mg_2SiO_4$ ], approved medicines. So, *Medicinal synthetic AMS*<sup>®</sup> [MSAMS] was formulated from AS and MS:  $\{Al_4(SiO_4)_3+3Mg_2SiO_4 \rightarrow 2Al_2Mg_3(SiO_4)_3\}$ . Dextrose monohydrate (simple sugar) was incorporated to convey the un-absorbable medicine into blood-circulation. Prostate specific antigen titer (7.60 ng/ml) of MSAMS-treated prostate-enlargement patient normalized ( $\leq 4.00$  ng/ml) after four months (2.60 ng/ml) while a stage-4 prostate-cancer patient (PSA: 4349.38 ng/ml) recovered (1.80 ng/ml) after month-5.

**Keywords:** Medicinal synthetic aluminum magnesium silicate; Prostate tumors

### INTRODUCTION

Failure to identify biomedical markers for antitumor medicines is cause of the difficulty in developing safe and effective treatments for tumors including cancers, now ravaging the world.

Most medicines are designed against biochemistry of pathogens or their physical features but biochemistry of tumor-cells is same as biochemistry of the normal cells which treatments are meant to preserve. This makes most tumor medicines to exhibit intolerable side effects. Medicines made milder by designing them against` physical features of tumor cells need to make contact with all cells to take care of tumor-metastasis. Therefore, tumor medicines should be physically-acting and of ultra-*nanoparticles*.

Molecules of Aluminum magnesium silicate (AMS), an approved medicine/pharmaceutical stabilizing agent (Galindo & Cereso, 2006) consist of *nanoparticles* (0.96 nm) which have negative electrical charges on their surfaces and positive charges on their edges (Vanderbilt 2012). That ultra-small size would enable AMS-*nanoparticles* reach every cell to mop tumor-cells by opposite charges` electrostatic attraction (antitumor mechanism). Being a silicate, AMS would also boost immunity (Sun *et al*, 2014). Again, presence of the two charges on AMS-*nanoparticles* makes them hydrate, when in suspensions, to form three dimensional colloidal structures (Vanderbilt, 2012). The colloidal structures stabilize other medicines formulated with AMS. Stabilizing medicines protects them from being

rapidly metabolized so that they remain at high bioavailability for longer periods and when medicines stay longer at high bioavailability, their efficacies improve (Brent et al., 2001). Added to this, AMS-nanoparticles enhance delivery of medicines to effect-targets (Cristina et al., 2007) which also improves efficacies. With improved efficacies, lower dosages become effective for treatments. Using lower dosages for desired effects reduces side effects, thus contributing to enhancement of immunity. Enhanced immunity and enhanced efficacy lead to termination of microbial infections so that none remains to develop resistance. AMS-stabilized antimicrobials may even regain efficacies against already resistant infections. Enhancing immunity and effectively treating secondary infections also synergize pathogen-mopping to terminate tumor metastasis. Some countries do not have AMS  $\{Al_2Mg_3(SiO_4)_3\}$  as natural mineral deposits but they may have Aluminum silicate  $\{AS: Al_4(SiO_4)_3\}$  and Magnesium silicate (MS:  $Mg_2SiO_4$ ) which are also approved medicines (Galindo & Cereso, 2006). So a formulation of AS and MS was developed and named Medicinal synthetic AMS<sup>®</sup>  $\{MSAMS^{\circ}: \{Al_4(SiO_4)_3 + 3Mg_2SiO_4 \rightarrow 2Al_2Mg_3(SiO_4)_3\}$  (Ezeibe, 2012). Since AMS, AS and MS are un-absorbable, to get MSAMS<sup>®</sup> into blood-circulation so that it functions systemically, aided transport-principle was adopted by incorporating Dextrose monohydrate to it. The simple sugar carries the electrically charged nanoparticles across mucous membranes into blood-circulation (Murray, 2000).

#### CASE HISTORY/TREATMENT PROTOCOL

Two patients (one prostate enlargement and one prostate cancer) are being reported. The prostate enlargement case had tried other medicines but felt he was not getting relief. Also, the cancer case had undergone surgery and courses of chemotherapy but his case continued to worsen till his PSA titer rose to 4349.38 ng/ml and he was clinically sick. Both were placed on Antivirt<sup>®</sup> (MSAMS<sup>®</sup>), to be taken  $\geq 2$  hours after dinner (empty stomach) and Vitamin C 1000 IU (antioxidant) to be taken in the morning (for convenience)

#### RESULTS

The prostate enlargement case who started treatment with 7.60 ng/ml as his last PSA titer (tumor-marker) had it increased to 9.70 n/ml after 1 month before reducing to normal (2.60 n/ml) in 4 months. The stage-4 prostate-cancer case with PSA, 4349.38 n/ml had it reduced to: 29.88 n/ml after 1 month, 7.16 ng/ml after 2 months, 4.80 n/ml after 3 months and 1.80 n/ml after 5 months (there was no test in the 4th month).

#### DISCUSSION

Medicinal synthetic Aluminum–magnesium silicate<sup>®</sup> (MSAMS<sup>®</sup>; Antivirt<sup>®</sup>) uses electrical charges on its

nanoparticles to bond to opposite charges on electrically charged pathogens to inhibit them and to mop them. So, it could cure any disease caused by an electrically charged pathogen. Also, because the nanoparticles have both positive and negative electrically charged ends, when it is in suspensions they form three dimensional colloidal structures around other drugs formulated with it. The colloidal structures stabilize the other drugs. So, MSAMS<sup>®</sup> is also a stabilizing agent. Meanings for “stabilize” include protection against destruction (drug-metabolism). By slowing rate of metabolism, MSAMS<sup>®</sup> increases length of time high concentrations of drugs remain in blood after treatment (prolonging time of high bioavailability). It is an existing knowledge that prolonging high bioavailability-time improves efficacy of medicines.

Electrically charged disease-agents which MSAMS<sup>®</sup> has inhibited, *in vitro* and/or *in vivo* include, Human immune deficiency virus (Ezeibe et al., 2023), Peste des petits ruminant virus and Newcastle disease virus (Ijabo, 2006), Egg drop syndrome virus (Okorafor, 2006), Canine parvovirus (Nwigwe, 2010) and Avian influenza virus (Egbuji, 2011).

Antimicrobials which systemic effects MSAMS<sup>®</sup> has enhanced include Chloroquin (Elendu-eleke, 2014), Ampicillin (Ezeobele, 2015), Cotrimoxazole (Udom, 2018) and Streptomycin (Ogbonna, 2023). Stabilizing Cotrimoxazole with it made recommended dosage of the antibacterial medicine effective against trypanosmosis, both in mice and in sheep (Akpan, 2023).

In the treatment of Newcastle disease virus-infected chicks and Canine parvovirus infected dogs, there were significant recoveries in treated groups (Ijabo, 2006; Nwigwe, 2010). Also, with infections treated with MSAMS<sup>®</sup>-antimicrobial formulations, there were significant reductions in:

- i). Plasmodia-parasitemia in mice.
- ii). Ampicillin-resistant *E. coli* colony forming units in bile of chicks.
- iii). Cotrimoxazole-resistant *Salmonella pulorum* colony forming units in bile of chicks.
- iv). Streptomycin-resistant *Salmonella tiphymurim* colony forming units in bile of chicks.
- v). Stabilizing Cotrimoxazole with MSAMS<sup>®</sup> conferred anti-trypanosome efficacy on the antibacterial drug so that it improved parasitemia-reduction rate from 54 % to 100 % (clearance : Akpan, 2023).

These systemic effects on viral infections, bacterial infections and parasitic infections confirm that Dextrose monohydrate (simple sugar) aided MSAMS<sup>®</sup> into blood-circulation.

Before these two tumor cases being reported, MSAMS<sup>®</sup> had been effective against tumors. Scans of uterus of a fibroid patient revealed four “big masses” measuring a total of 5239.

52 mm<sup>2</sup> before MSAMS<sup>®</sup>-treatment but after six months on the treatment, the “big masses” reduced to two, measuring only 836.94 mm<sup>2</sup> (84.04 % reduction). Many cases of benign prostate tumor have also been successfully treated with the medicine. The first case of prostate tumor so treated was 7 years ago and the man is still healthy. Normal level for the Prostate specific antigen (PSA) is 0 – 4 ng/ml. Any titer above 4 calls for medical attention. So, for PSA titer of a patient to be 4349.38 called for emergency attention. The patient was very sick and had to undergo surgery followed by the usual “chemotherapy” which also failed.

Currently, the world regards stage-4 cancer cases as incurable but all it takes to design safe and effective cure for any disease is to identify correct biomedical marker for its causative agent. Since tumor-cells are negatively charged while normal cells remain neutral (without electrical charges) there is nothing difficult in reasoning that a medicine which has molecules that consist of *nanoparticles* with positively charged ends would mop abnormal cells to cure patients of tumors including cancers. This stage-4 prostate cancer case is not the first to be cured by Medical center of Michael Okpara University of Agriculture, Umudike-Nigeria, using the same medicine. The first case so cured, has remained healthy for over two years, post treatment.

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