

CASE REPORT

A Case Study on Management of HIV by Integrated Treatment with Siddha Medicine and ART

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ABSTRACT

AIDS (Acquired immunodeficiency syndrome) is a syndrome caused by Human immune deficiency virus (HIV). The disease alters the immune system making the patient much vulnerable to infections and diseases. This susceptibility worsens if the syndrome progresses. HIV is a virus that attacks immune cells called CD-cells. A 34-year-old male with the complaints of hair fall, frequent cold, cough visited Siddha Clinical Research Unit, Outpatient department, Bengaluru on July 2017. History revealed that he was suffering from HIV since 2014, and he was under ART since then. He was subjected to CD4 count diagnosis once in 6 months after the initiation of ART, result showed no remarkable increase in CD4 count cells. The patient was treated with Siddha medicines - *Nilavembu kudineer*, *Thiriphala chooranam*, *Aya bringarajakarpam*, and *Nellika ilehyam*. There was a notable increase in CD4 count after 6-month treatment with Siddha medicines. This case study demonstrates that HIV as well as opportunistic infections can be well managed with Siddha medicines.

KEY WORDS

AIDS, ART, CD4 count, HIV, *Nilavembu kudineer*, Siddha medicine.

1.0 INTRODUCTION

HIV is a virus spread through certain body fluids that attacks the immune system, specifically CD4 cells (also known as CD4+T cells), which help the immune system to fight against infections. Untreated HIV reduces the number of CD4 cells in the body, making the person more liable to infections called opportunistic infections. These opportunistic infections take advantage of the weak immune system and alert the person that he has AIDS, the last stage of HIV infection.^[1] The Government of India estimates that about 2.40 million Indians are living with HIV.^[2] According to Karnataka State AIDS Prevention Society (KSAPS), 80,173 people had died of HIV over the

past decade in Karnataka. Among 80,173 people who died of HIV, 60,208 were provided Anti-Retroviral Therapy (ART) by the Government. Usually people infected with HIV are subjected to ART. These are the drugs which do not kill or cure the virus. Instead when taken in combination they can prevent the replication of virus. CD4 count is monitored once in every 6 months during the administration of ART. The CD4 count is used to assess the immunological response to ART and the need of initiation or discontinuation of prophylaxis for opportunistic infection.^[3] In Siddha system of medicine various herbals and herbo-mineral formulations has been used to cure various viral infections traditionally. The protective effect of *Nilavembu*

kudineer against common viral fevers include dengue was clinically proved.^[4] Hereby, we report in this case study, a patient diagnosed with HIV and under treatment with anti retro viral drugs. As, he had less CD4 count, he was treated with Siddha medicines integrated with ART. A considerable increase in CD4 count was observed.

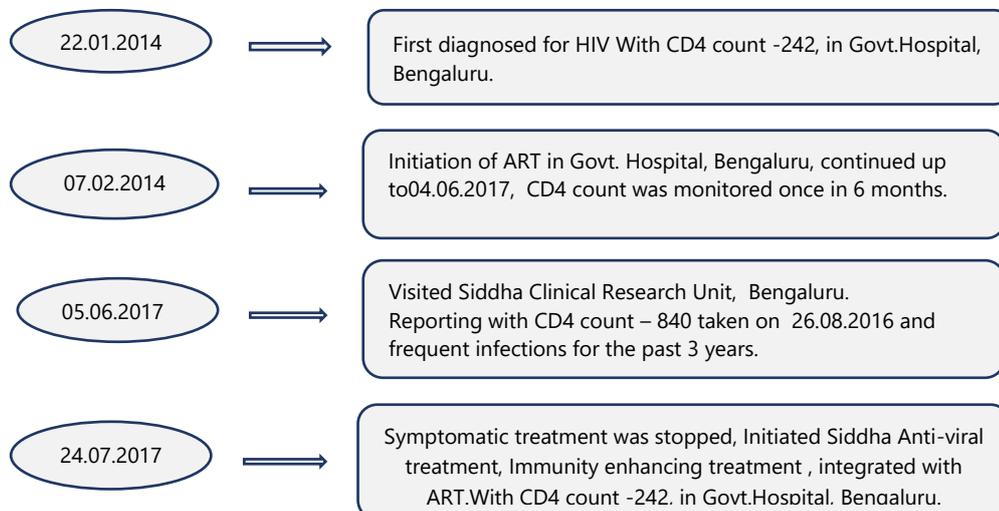
2.0 CASE DESCRIPTION

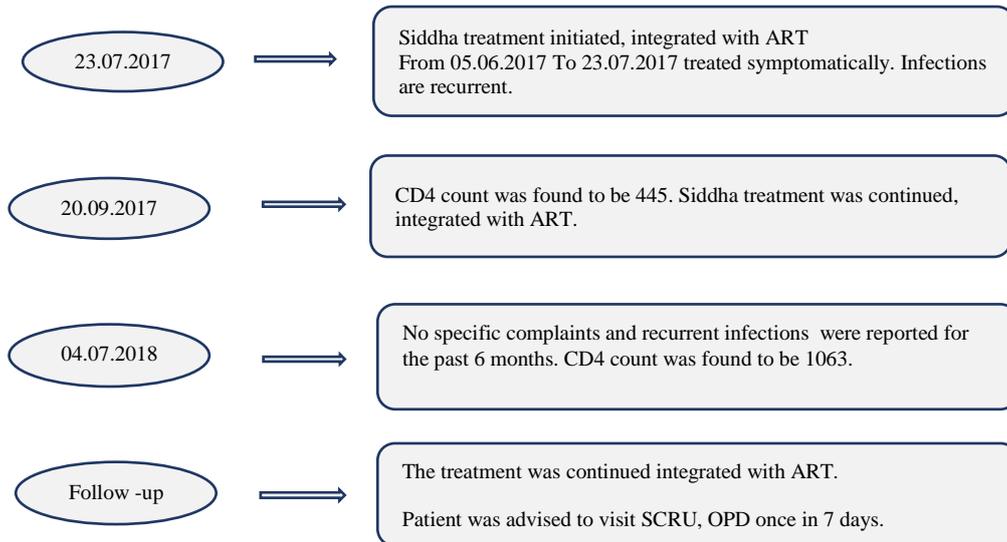
A 33-year-old male, working in NGO for the past 5 years in Bengaluru, who is non-smoker, non – alcoholic visited the SCRUPD on 05.06.2017 with the complaints of severe hair fall with baldness, frequent infection of cough, cold, blackening of nails and tiredness for the past 3 years. The detailed history from the patient and the laboratory investigation revealed that he was infected with HIV and it was first diagnosed on 2014 and he was subjected to ART on 07.02.2014 in Government Hospital, Bengaluru since then. After the initiation of ART, CD4 count was monitored once in every 6 months. There is no relevant family history and genetic information regarding his medical conditions. On his visit to SCRUPD on 05.06.2017 his CD4 count was found to be 840, which was taken on 26.08.2016. On examination his Nadi was found to be Vatha kapham, weight-58kg, pulse rate-72/min.

2.1 Therapeutic Interventions and its Outcome

Siddha treatment was initiated on 05.06.2017. Initially the patient was treated for his presenting symptoms till 23.07.2017 integrated with ART. Even though he was relieved from his symptoms, the infection was recurrent. Patient was reporting the same complaints during his every visit to SCRUPD. From 24.07.2017 onwards Siddha antiviral treatment was initiated, the patient was treated with Siddha Poly herbal formulation, *Nilavembu kudineer* which was proved for its anti-viral property and the drugs *Thiriphala chooranam*, *Aya bringarajakarpam*, and *Nellikai lehyam* which were prescribed to enhance the immunity of the patient along with ART. The dosage of the drugs was prescribed as per Table1. On 20.09.2017 CD4 count was monitored and it was found to be 445. The same treatment was continued for 10 months. The patient has not reported any frequent infection, hair fall controlled, hair growth present, blackening of nails returned to its normal texture, patient felt to be healthy. On 04.07.2018 CD4 count was monitored and it was found to be 1063. The increase in CD4 count (Graph 1) revealed the good prognosis of HIV. Patient was in follow up once in a week. There were no specific complaints and adverse reactions observed.

2.2 Timeline of Interventions





3.0 DISCUSSION

The case was treated with *Nilavembu kudineer*, *Thiriphala chooranam*, *Aya bringaraja karpam*, and *Nellikai lehyam* as per the following criteria:

Nilavembu kudineer was given to the patient as an anti-viral therapy, to reduce the viral load, which was practised traditionally for its anti-pyretic action.^[5] It was scientifically proved for its anti-pyretic, Antipyretic, anti-inflammatory and analgesic properties and also used in the treatment of chikungunya fever which is a viral fever.^[6]

According to Siddha system of medicine, the structural components or the tissue components of the body are composed of seven types of materials called *Udalthathus* or *Udalkattukal*. Seven physical constituents are *Saaram* or *Rasam*, *Chenneer* or *Raktham*, *Ooun* or *Mamisam*, *Kozhuppu*, *Enbu*, *Moolai* or *Manjai*, *Venner* or *Sukkilam*. As in HIV, CD4 cells which is an type of blood cells are affected, the patient is treated with *Thiriphala chooranam* which is astringent in taste, which tends to be act in *Chenneer* or *Raktham thathu*.^[7]

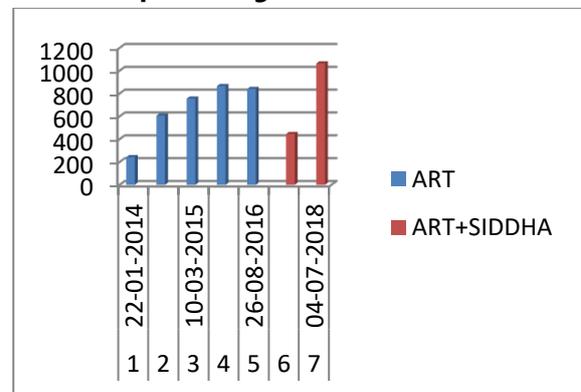
Longevity and ageing with elegance are an important speciality of Siddha system. *Kayakalpham* or rejuvenation therapy is the unique therapy in Siddha system of medicine which enhances the life span, promotes health, better the body lustier and improves the

efficiency of the different cognitive abilities and enhances the innate health. *Aya bringharaja Karpam* was prescribed to the patient which is mentioned as *Thathuporul karpam* for promoting rejuvenation, healing and regeneration of living tissue in the body. It also helps to increase the immunity of the person to keep him away from diseases.^[8]

Table 1. Administration of Drugs

Drug administered	Dosage
<i>Nilavembu kudineer</i>	30 ml twice a day.
<i>Thiriphalachooranam</i>	2 g twice a day with honey.
<i>Aya bringarajakarpam</i>	100 mg twice a day with honey.
<i>Nellikaillehyam</i>	5 g twice a day with milk.

Graph 1. Prognosis in CD4 count



Vitamin C is essential for the management of beginning infections, Poor immune defence and chronic diseases, and detoxification. Number of studies has investigated the effects of vitamin C on diverse infections. A total of 148 animal studies indicated that vitamin C may alleviate or prevent infections caused by bacteria, viruses, and protozoa.^[9] So *Nellikai lehyam* which is the source of vitamin C is prescribed.

This combined Siddha treatment of above-mentioned oral Siddha drugs and ART were helpful in treating the patient of HIV and for the improvement in quality of life in HIV patient. This approach may be taken into consideration for further treatment and research work for HIV.

Ethical Approval:

All procedures performed in this study involving human participants were in accordance with the ethical standards of Helsinki declaration.

Informed consent:

Informed consent was obtained from the patient involved in this study.

Conflict of Interest:

Authors have concluded that there is no conflict of interest.

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