

**CLINICAL PROFILING OF PEDIATRIC PATIENTS VISITING THE ANTI  
RETROVIRAL THERAPY CENTER****Dr. Rakesh Garlapati<sup>1\*</sup>, Dr. Thanuj K. V.<sup>2</sup>, Dr. Vennela D.<sup>3</sup>, Dr. Snehitha V.<sup>4</sup>, Dr. Suhas S. Aithal<sup>5</sup>**<sup>1,2,3,5</sup>Post Graduate, Department of General Medicine Sri Devaraj Urs Medical College, Tamaka, Kolar, Karnataka<sup>4</sup>Internee, Department of General Medicine Sri Devaraj Urs Medical College, Tamaka, Kolar, Karnataka**\*Corresponding Author: Dr. Rakesh Garlapati**

Post Graduate, Department of General Medicine Sri Devaraj Urs Medical College, Tamaka, Kolar, Karnataka

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**ABSTRACT**

**Introduction:** Our aim was to study the clinical profile and assess efficacy of ART therapy in pediatric patient visiting ART center. **Material and methods:** The study was carried out in ART center. Study was structured questionnaire. **Results:** Males were more affected than females. Most common mode of transmission was mother to child. Tuberculosis was most common opportunistic infection. And CD4 count increased in patient on ART. The mean weight of HIV positive pediatric patients at first visit is 17.4636 and at last visit is 18.5182, which clearly depicts the increase in weight of the patients after ART treatment. **Conclusion:** In the studied patients, Males were more commonly affected and most common opportunistic infection was tuberculosis. Patient on ART has increase in their CD4 count. Most common mode of transmission of HIV in pediatric age group is mother to child transmission.

**KEYWORDS:** HIV, Pediatrics, CD4 counts.**INTRODUCTION**

**Acquired immune deficiency syndrome or acquired immunodeficiency syndrome (AIDS)** is a disease of the human immune system caused by the human immunodeficiency virus (HIV). This condition progressively reduces the effectiveness of the immune system and leaves individuals susceptible to opportunistic infections and tumors.<sup>[1]</sup>

The UN AIDS report on the global AIDS epidemic estimated that approximately 4, 20,000 new HIV infections occurred in children below 15 years of age in year 2007. 90% of them occurred through mother to child transmission.<sup>[1]</sup>

It is estimated that 30,000 children are born in India every year with HIV infection. Children represent only 6% of all people infected with HIV/AIDS<sup>2</sup>. Only 4% of the 1 million people now on ART are children<sup>2</sup>. One in every 6 AIDS deaths each year is a child; children represent less than one of every 25 persons getting ART treatment in developing countries today.<sup>[2]</sup>

The immune system of young children who are infected perinatally is immature and hence dissemination throughout the various organs may occur very early.<sup>[3]</sup>

Antiretroviral therapy provides life sustaining support for the HIV infected child. Antiretroviral drugs are medications for the treatment of infections by retroviruses, primarily HIV. The American National

Institutes of Health and other organizations recommend offering antiretroviral treatment to all patients with AIDS. The use of antiretroviral is also recommended for the prevention of mother-to-child transmission of HIV-1. The primary Goal of Antiretroviral therapy is to reduce the HIV virus load leading to improved immunity & life expectancy. Continual monitoring of the clinical profile of these patients needed to identify problems.

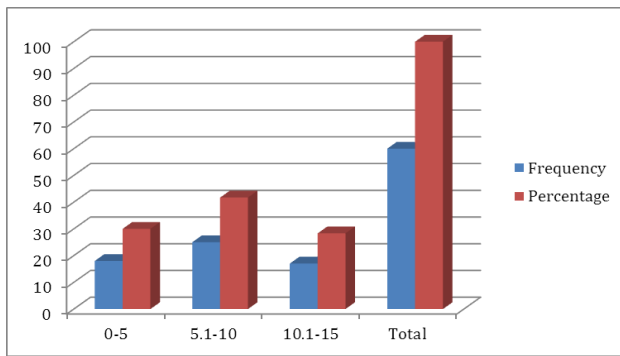
**OBJECTIVES**

- To study clinical profile i.e. opportunistic infections.
- To assess the effect of ART therapy

**MATERIALS AND METHODS**

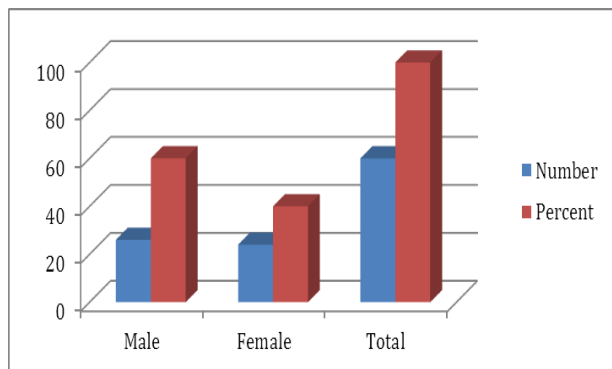
- **Study Design:** Observational study
- **Study Setting:** The study was conducted in the ART center
- **Study Period:** 2 months.
- **Sample Size:** 60 patients
- **Analysis:** Data analysis was done by SPSS (statistical package for social studies) version 16
- **Study instruments:** Data was collected based on a pre-structured proforma available in the ART centre.

**DATA ANALYSIS**



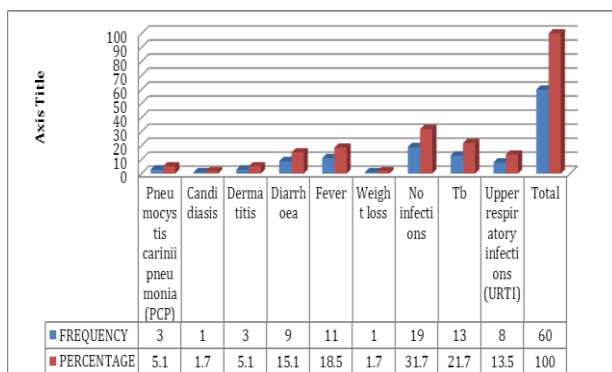
**Figure 1: Age distribution of ART centre attendees**

Majority of the pediatric patients belong to the 5.1-10 age group(41.7%).Followed by the 0-5 age group(30%)and the rest falling between 10.1 -15(28.3%).



**Figure 2: Distribution of the ART center attendees according to the gender distribution.**

Majority of the children treated by ART were males making 60%of the total while females were 40%



**Figure 3: Distribution of the ART center attendees according to the Opportunistic infections among patients**

31.7% of total 60 patients did not suffer from any opportunistic infections. 21% of the people were suffering from TB which is the most prevalent infection among pediatric HIV patients.

**Table 1: Distribution of the ART centre attendees according to the Comparison of weight before and after treatment**

	N	MEAN	STD. DEVIATION
WEIGHT AT FIRST VISIT	55	17.4636	5.75974
WEIGHT AT LAST VISIT	55	18.5182	6.37774

**Table 2: The CD4 cell Count before and after treatment**

	N	Mean
CD4-before treatment	41	484.3902
CD4-after treatment	41	758.3171

There was a significant rise in the mean CD4 cell count after treatment with ART.

**DISCUSSION**

The present was conducted out in ART center to study the clinical profile. 41.7% of patients were in age group 10-15 with the mean age of children being treated 7.95 year. 0-5 age group accounting about 30% follows this. HIV is more common in males as compared to females with 60% of patients being males.

Commonest mode of transmission to children was vertical transmission similar to other studies.98.3% patients were infected due to mother to child transmission, which includes both vertical transfer that is through placenta, and also breast-feeding.<sup>[5,9]</sup> The most common symptom was weight loss due to anorexia, diarrhea and repeated infection.<sup>[9]</sup> Tuberculosis (35%) continues to be the most common opportunistic infections similar to other studies.<sup>[8,9]</sup>

The mean weight of HIV positive pediatric patients at first visit is 17.4636 and at last visit is 18.5182, which clearly depicts the increase in weight of the patients after ART treatment. This is in accordance with the research conducted in Maharashtra in which mean weight of the patient increased from 15.5 to 16.8 kg. The ART is effective in improving general physical condition and clinical status of seropositives.<sup>[7]</sup> There was a significant rise in the mean CD4 cell count after treatment with ART. The mean rise in the CD4 count was 273.92.This is confirmed by the similar study.<sup>[7]</sup>

**CONCLUSION**

In the studied patients, Males were more commonly affected and most common opportunistic infection was tuberculosis. Patient on ART has increase in their CD4 count. Most common mode of transmission of HIV in pediatric age group is mother to child transmission. This becomes even more important in current scenario to educate all the individuals of society regarding HIV/AIDS and all sexually transmissible disease, so that children can be protected.

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