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Study on Herpes Zoster Conducted in HIV/AIDS Albanian Adults

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Abstract: ***Herpes zoster is currently recognized as one of the major opportunistic infections of HIV / AIDS. It may appear at the first time of HIV infection or AIDS, and in the case of immune recovery after the initiation of ART. We studied 481 cases with HIV / AIDS registered in Infectious diseases services and out patient clinic of HIV / AIDS, of UHC "Mother Theresa". 61 of them resulted Hepes zoster .We analyzed the time of occurrence of Zoster in these subjects, the CD4 + level at the time of diagnosis, localization of vesicles, the type and density of them, his appearance at the time of immune recovery. We analyzed also some of the epidemiological aspects and co-infections manifested at the same time in these subjects. From them 63.9% were male, age group 31- 40 years old and 41-50 years old respectively resulted affected 31.14% and 34.45% ,was encountered 24 types concomitant opportunistic infections; In 31.1% of cases CD4 + was seen in limits 100 cel/mm3 - 250 cel / mm3. In 40.32% predominated thoracic localization of vesicular elements followed by 19.35% from that thoraco-lumbar. Ulcero hemorrhagic forms were encountered in 12.16%. Morality occurred in 6.55%***

Keywords: Zoster, HIV/AIDS, Albania

1. Introduction

Herpes Zoster has been known since ancient times as a unique clinical entity due to dermatomes vesicular rash; it represents the activation of the human herpes virus 3 that has given partial immunity after a previous attack by the Varicella (chickenpox) [13]. Herpes zoster represents a clinical variety, it manifests the highest gravity to immunocompromised patients than in patients with normal immunity. [7] [8] The incidence in these subjects is 10 times higher than in immunocompetent[11] Immunocompromised patients have lesions often more numerous and require a longer time to heal than in patients with normal immunity[9]. They are also at higher risk for complications of internal organs, which can range in 30-50% of cases and is fatal in 15% of them in the absence of antiviral therapy. [10]

A depressed immune system may play an important role in reactivation of VZ virus. Its association with impaired cell modiated immunity due to various causes is well known.[1] In last few years its association with HIV infection has been reported by several workers.[2][3][4] The development of herpes zoster has been reported to be a possible early clinical sign for development of AIDS in high risk individual by some workers.[5]. A eight year follow up study of herpes zoster in HIV infected patients is presented in this study.

2. Material

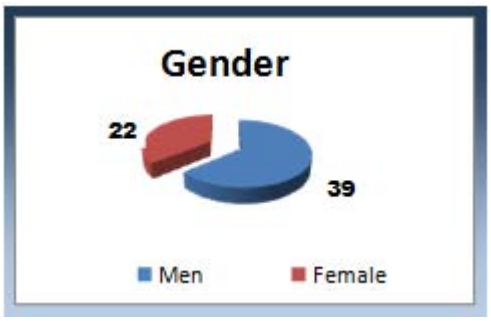
We got to study 481 cases of HIV / AIDS registered in the service of infectious diseases and outpatient clinic of HIV / AIDS in UHC Tirana, during the period 2007 to 2015, studied age group 16-81 years old.

3. Methods

The study is retrospective analytical type. The diagnosis of herpes zoster was made clinically on the basis of characteristic presentation of vesicles in dermatome or disseminated pattern. Diagnose of HIV positive cases was based on ELISA and Western Blott methods. We analyzed some epidemiological aspects of the persons appearing, immunological stage, the level of CD4 + cells at the time of diagnosis, when zoster had done during the progression of disease recurrence, as well as the manifestation of IRIS cases after initiation of therapy with HAART. We searched for co-infections manifested at the same time in these subjects, Co- pathologies such as HBsAg, anti HCV, TB and Syphilis. Underlined the herpes zoster cases where it's appeared before AIDS diagnosis (we included here manifested of zoster to 5 years before diagnosis of HIV), at the time of diagnosis and screening during immune recovery syndrome. We described clinical evaluation regarding the segment of involvement, morphology pattern of lesions and disseminations.

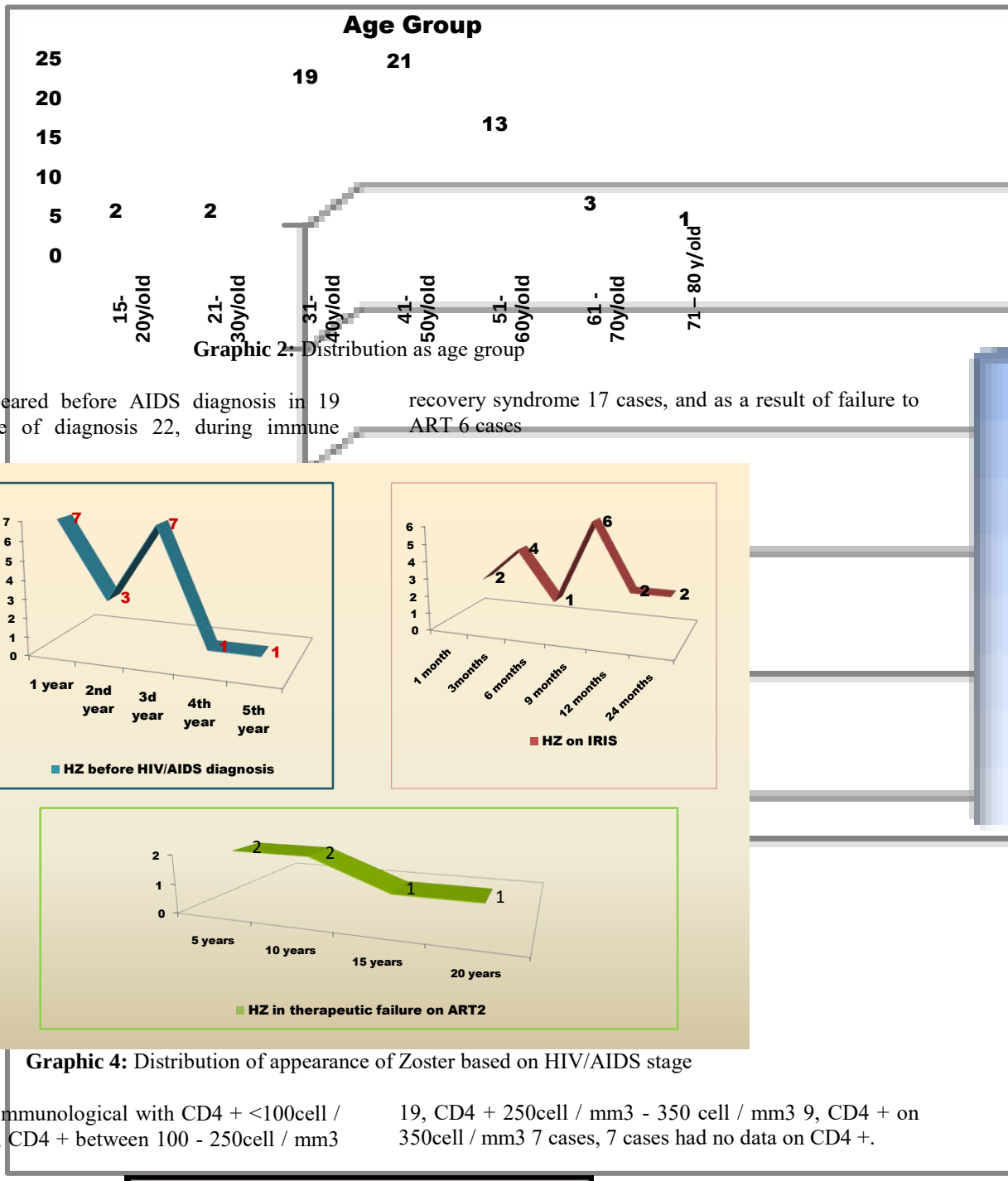
4. Results

- 61 cases resulted Zoster in 481 analyzed with HIV/ AIDS in different stage
- According to the epidemiological aspect 63.93% males and 36.06% females



Graphic 1: Distribution between men and female

- Based on age group: 15-20 years old 2 cases, 21 – 30 years old 2, 31 -40 years old 19, 41 – 50 years old 21 , 51 – 60 years old 13, 61- 70 years old 3, 71 – 80 years old 1 case

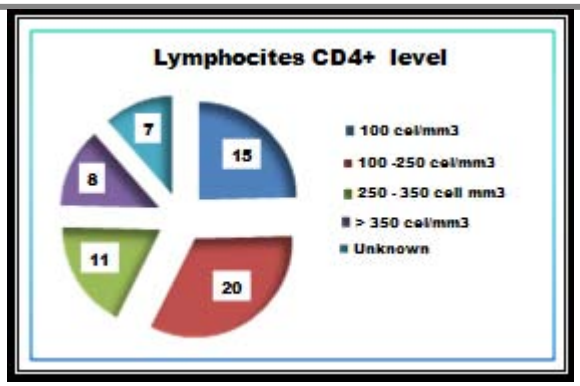


Graphic 2: Distribution as age group

- Herpes zoster appeared before AIDS diagnosis in 19 cases, at the time of diagnosis 22, during immune recovery syndrome 17 cases, and as a result of failure to ART 6 cases

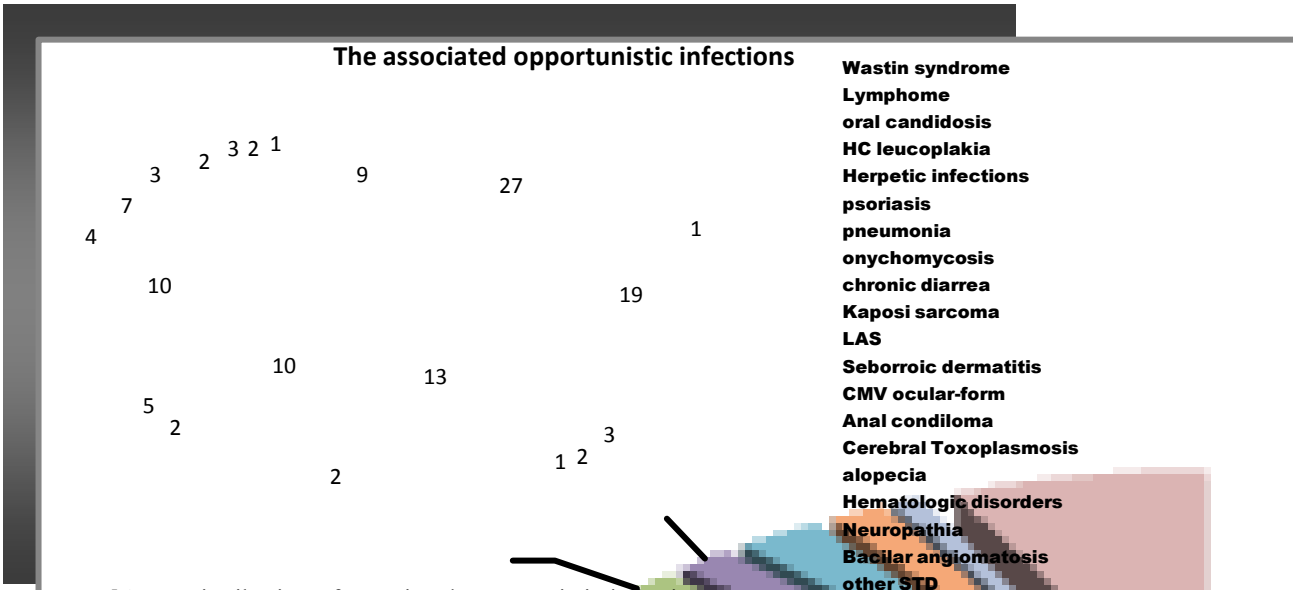
Graphic 4: Distribution of appearance of Zoster based on HIV/AIDS stage

- Based on the stage immunological with CD4 + <100cell / mm3 were 13 cases, CD4 + between 100 - 250cell / mm3 19, CD4 + 250cell / mm3 - 350 cell / mm3 9, CD4 + on 350cell / mm3 7 cases, 7 cases had no data on CD4 +.



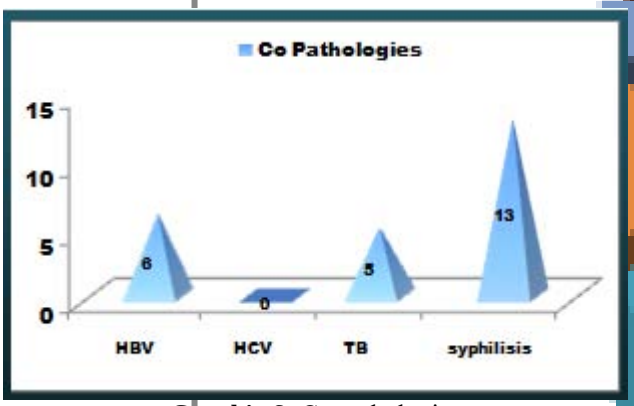
Graphic 4: Nr of cases based on CD4+ level in diagnostic moment of HIV/AIDS

- Zoster recurrence up 2 episodes resulted in 6 cases, 3 were during IRIS.
- Were identified 20 species of the associated opportunistic infections



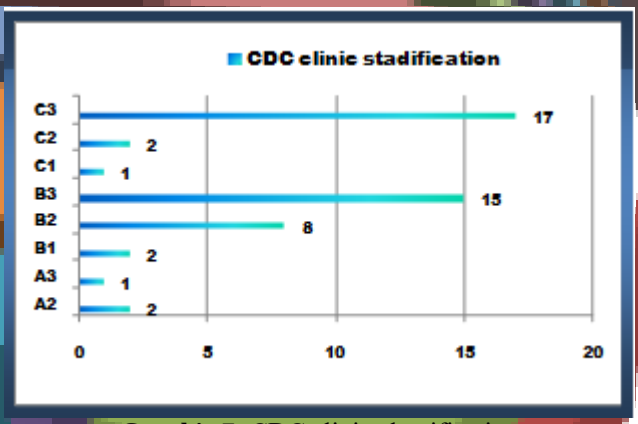
Graphic 5: Distribution of associated opportunistic infections on Herpes Zoster cases

- In Co pathologies HIV - HBV were 6 cases , HIV –TB 5, HIV – Syphilis 13



Graphic 6: Co pathologies

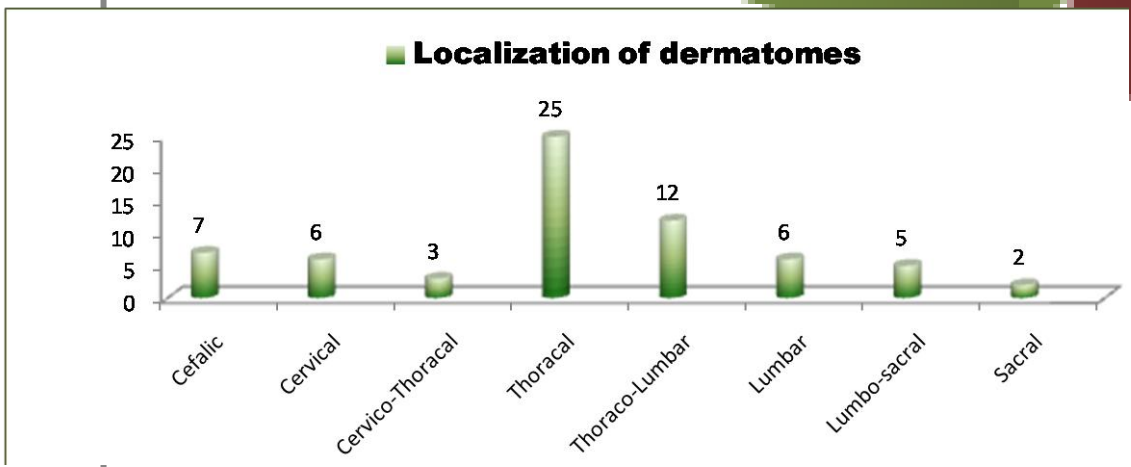
- Based on CDC clinic classification: **A2** 2 cases, **A3** 1, **B1** 2, **B2** 8, **B3** 15, **C1** 1, **C2** 2, **C3** 17 cases



Graphic 7: CDC clinic classification

19 of cases are hospitalized as a result of the gravity of this virosis , dermatomes dissemination gravity of eruptions, and herpetic neuralgia that was present

- Based on dermatomes localization



Iconographia

5. Conclusion

From 481 cases of HIV / AIDS included in our study herpes zoster resulted in 12.68%. Prevailing men in relation to women with 63.93%. Age group 31- 40 years old and 41-50 years old resulted more affected, respectively 31.14% and 34.45%. Based on immunological level it was at top CD4 + between 100cel/mm^3 to 250 cel / mm^3 were 32.78%. Reccurence on two episodes had become 11:47%. Identified 20 types of concomitant opportunistic infections and 4 types of Co pathologies. With the highest number of zoster cases constituted at the time of HIV / AIDS diagnosis 36.06% . In 40.32% thoracic localization of vesicular elements ranked above followed by thoraco-lumbar with 19:35% Ulcero hemorrhagic forms were encountered in 12.16%. Exitus letalis resulted 6:55% of them The data concluded suggested to increase attention to this virus as the first manifestation of HIV / AIDS. It presents a particular challenge and requires individual treatment decisions.

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