SHORT COMMUNICATION

O-1. ORAL LESIONS OF HIV-INFECTED CHILDREN IN WEST AFRICA IN THE ERA OF ANTIRETROVIRAL TREATMENTS

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Key words
Oral lesions HIV, children, antiretroviral treatments, Mali, West Africa

Introduction
Oral lesions are common in patients infected with HIV and may affect their quality of life: wellness, nutrition, treatment adherence, social relations. Opportunistic diseases, they have been well described in industrialized countries [1, 2]. Their incidence decreased with highly active antiretroviral treatment [3]. However, little data exists on the prevalence, incidence and even the clinical characteristics of oral lesions in resource-limiter settings, and in sub-Saharan Africa in particular, the continent the most affected by the HIV pandemic and where access to antiretroviral treatments (ART) is increasing,particularly in children.
The main objective of this study was to describe the prevalence of oral lesions among HIV-infected children ages 5-15 years with antiretroviral treatment in Côte d'Ivoire, Mali and Senegal.

Population and Methods
We conducted a cross sectional survey in Abidjan, Dakar and Bamako entitled WADORAL (West African Database on ORAL health in HIV infected patients on ART). An agreement was obtained from the local ethics committees to conduct this study.
A random sample from the children on antiretroviral treatment followed in the participating centers, aged 5 to 15 years, was examined by trained and calibrated dentist when the caregiver had given his written consent.The collected data included HIV-related oral lesions [2], dental status, and oral hygiene and feeding habits. Also, data on HIV infection and treatment was collected. We present here preliminary findings from the Paediatrics department of the Gabriel Touré Hospital in Bamako, Mali. The statistical analysis was descriptive only.

Results
The sample size calculated for this center was 120. The median age of the patients enrolled was 9.3 years (Inter Quartile Range [IQR]=7.3-12.6); 45% were girls. All children received cotrimoxazole-based prophylaxis.
The World Health Organisation (WHO) clinical stage at ART initiation and at the time of the study were presented in Table 1
Only 19.2% of the patients declared they have seen a dentist before the study.
The prevalence of decay was 91%, 71% in permanent denture and 84% in temporary denture.
The Decayed, Missing, Filled Teeth (DMFT) index was 2.86 (standard error [SE]=2.59), in permanent teeth, 4,84 (SE=4,06) in temporary teeth and 6,33 (SE=3,89) globally.
A parotid enlargement was present in 4.3% of the children.
A history of oral lesions was declared by the 44 caregivers (35,8%) and reported in 33 patients charts (27,5%). More than 90% was oral candidiasis, 85% after treatment initiation.
At the time of the study, 10 children had oral lesions (8.3%):
- 6 oral candidiasis (4 pseudomembranous and 2 erythematous)

- 3 necrotizing ulcerative periodontits
- 1 papilloma

They were located on the gingiva (n=5), on the tongue (n=4), on the palate (n=1)

	At ART initiation		At the period of the study	
	n	%	n	%
Stage 1	17	15,0	104	88,3
Stage 2	17	14,2	11	9,2
Stage 3	71	59,2	2	1,7
Stage 4	14	11,6	1	0,8

Table 1: WHO clinical stage of the children participating in the WADORAL study, Bamako, April-May 2011, n=120

Discussion

Our findings corroborate our hypothesis with regards the prevalence of oral lesions in children [4]. The oral candidiasis was the main HIV-related oral lesion in HIV infected children on ART. However, the parotid enlargement was less common then what has been described in the literature (9-18%).

We found a high and severe dental condition requiring appropriate referral care to dentists with effective link between the different specialities. HIV-infected children are considered at high risk for frequent and severe dental lesions in industrialized countries as well as in developing countries [5-8]. Our study confirm this observation although it did not allow to say if they were at higher risk than non-infected children as we did not include a control group. In resource-limited setting, access to dental care is difficult because of low oral health manpower and high relative cost [9]. A substantial fraction of the increased caries among HIV-infected children may be attributed to more frequent feeding with carbohydrate- and sucrose-rich foods, more frequent sweetener-containing medications associated with unfavourable dental health behaviour and low fluoride intake [6, 10], and to have increased levels of cariogenic bacteria or more common xerostomia. Also, dental caries was shown to increase with immunosupression [11] and oral lesions were more common in children with poor dental health [12]. Lack of care may lead to premature dental extraction, with an impact on health and quality of life.

Conclusions

HIV care would gain to include as a part of the multipliciplinary team dental staff to take care of the high level of caries observed in this group of HIV infected children on ART in a resource-limited setting.

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