

HIV Check in Childhood and Layered Suites at Sylvanus Olympio Teaching Hospital of Lome (TOGO)

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Abstract Objectives: To reduce the mother-to-child transmission of HIV through routine screening of HIV in the delivery room and after childbirth. **Methodology:** This is a prospective and descriptive study covering a period of 06 months, conducted from 1st February 2017 to 31 July 2017. The variables studied are those relating to epidemiological, obstetric and neonatal data. **Results:** The average age in our series was 27 years old. The prevalence of HIV was 2.4%. HIV seroconversion was detected in 06 (0.75%) of the initial parturients who had negative HIV results in early pregnancy. HIV infection was detected in 22 (6.5%) of the 334 parturients whose health status compared to HIV was unknown. Secondary schooling was significantly associated with seroconversion ($p < 0.05$). The proportion of women with unknown HIV status was higher among those who had not received ANC (78.45% of HIV + participants). All newborns were put under protected breastfeeding. **Conclusion:** Career-initiated HIV testing or "opt-out" in the workroom could serve as a catch-up strategy in complementarity with the integrated service at the NPC (prenatal consultation) level. By systematically offering it to the maternity ward, the operational coverage of the PMTCT service can be increased.

Keywords: HIV, Lome, Togo

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1. Introduction

HIV infection remains the first global epidemic with 35 million people infected worldwide [1]. As vertical transmission has been the main mode of infection in children for the last ten years, several methods of preventing transmission (PMTCT) of HIV have been initiated to stop this infection in children. Thanks to a better knowledge of the risk factors of vertical transmission of HIV, but also to the establishment of numerous clinical trials and protocols focusing on the use of ARVs [2]. In 2012, Togo developed and adopted a national AIDS policy document called "vision 2020". This document reflects the government's vision of achieving an AIDS-free generation in Togo by 2020 [3]. This policy has reduced the prevalence of HIV/AIDS. HIV testing in the delivery room at the CHU-SO HIV prevalence in Togo with a generalized epidemic was estimated at 2.5% in 2014 against 3.4% in 2009 [4]. The rate of HIV transmission in children at PMTCT sites increased from 20% in 2007 to 7.8% in

2010 [4]. The vertical transmission was zero at 6 weeks and 18 months of life in the research protocol of the French agency France expertise in Togo formerly called GIP ESTHER from 2011 to 2013 at the CHU-SO on: "early treatment HIV + pregnant woman and her child in her protected breastfeeding program in Togo" [5]. The final transmission rate of HIV from mother to child including the breastfeeding period is 14.17% compared to 37.92% in 2009 according to EPP Spectrum 2015 [3]. In Togo, HIV testing is an integral part of antenatal care. Thus, all pregnant women seen in antenatal care should be counseled on HIV/AIDS; but screening is done after informed consent to reduce the risk of mother-to-child transmission of HIV/AIDS [5]. Despite this policy of bringing services closer to pregnant women, we found that some parturients admitted to the delivery room escaped this counseling/screening and repeated screening during pregnancy. As a result, deliveries with high HIV infectious potentiality still occur, although this could be avoided at present. In order to give equal opportunities to all working women, knowledge of their HIV status becomes a necessity. We therefore felt it necessary to

undertake this work in order to find out more about the reasons for these unmet needs, to determine the rate of HIV seroconversion during pregnancy and the prevalence of HIV in pregnant women. Childbirth work with previously unknown HIV status to reduce the risk of mother-to-child transmission of HIV / AIDS

2. Materials, Framework and Working Methods

It was a prospective and descriptive study that lasted 6 months. We recruited cases from February 1, 2017 to July 31, 2017. Our study was conducted: In the delivery room and after the diaper of the gynecological and obstetric department of the university hospital Sylvanus Olympio (CHU-SO). The parturients received at the maternity hospital for delivery work whose serological status is unknown and those who have only carried out a first negative test during pregnancy. We have included in our study, Parturients have not been detected during the pregnancy. Parturients tested negative during pregnancy three months ago. We did not include in our study Parturients of known HIV + serostatus and ARV treatment. The screening of maternity parturients was conducted according to the Opt Out strategy Recommended by the WHO, which is a systematic proposal for carer-initiated screening unless they explicitly refuse it. The principles of confidentiality and respect for the patient's wishes are guaranteed. The promotion of partner screening is encouraged. Rapid screening was done according to WHO strategy III. This strategy consists of three tests: Determine HIV-1/2, Unigold HIV and Double Check Gold HIV-1 / 2. The Determine is used as first line (very sensitive) then Unigold (very specific) was used as a second test in case the woman is HIV-positive with Determine. Finally Double Check (more specific) was used as the third test in case the patient was positive in Determine and negative in Unigold. We used a survey sheet whose deficiencies have been improved after a pre-test. The collection was made by doctors or midwives at the admission of the maternity ward with a standardized survey form. The data were processed with epi-info version 7 software. The results were expressed with an interval 95% confidence. The Fischer Chi2 test was applied and the difference is significant if $p < 0.05$.

3. Results

3.1. Prevalence

During our study period, we conducted 1124 deliveries that did not include HIV-positive patients prior to admission. Of the 1124 deliveries, 28 were positive for admission, a prevalence of 2.4. Among the 28 cases, there were 6 cases of seroconversion in known seronegative patients during pregnancy. Seroconversion was detected in 6 (0.75%) of the 790 parturients who had negative HIV results at the beginning of pregnancy. HIV infection was detected in 22 (6.5%) of the 334 parturients

whose health status compared to HIV was unknown. The seroprevalence of HIV infection among all parturients in our study was 1.95%.

3.2. Epidemiological Characteristics

The average age in our series was 27 years with extremes of 14 to 49 years. For patients screened positive admission, the average age was 29 years with extremes of 17 to 45 years. The age group 25 to 30 years was the most represented. The liberal profession was the most represented in 75% of HIV + parturients against 67.97% of HIV parturients. The majority of HIV + patients in our study were out of school (42, 86% as shown in Table).

Table 1. Epidemiological characteristics of detected parturients

	VIH- n(%)	VIH+ n(%)	p-value
Age			
[10-15]	4(0,36)	0 (00)	
[15-20]	99 (9)	2 (7,14)	
[20-25]	244(22,26)	2 (7,14)	
[25-30]	377(34,47)	13 (46,43)	
[30-35]	237(21,6)	2 (7,14)	0,0019
[35-40]	107(9,76)	5 (17,86)	
[40-45]	27(2,46)	4 (14,29)	
[45-50]	1(0,09)	0 (00)	
Total	1096(100)	28 (100)	
Profession			
Libéral profession	745(67,97)	2 (1,75)	
Officials	81(7,4)	1 (3,57)	
Housewife	192(22,26)	5 (17,86)	
Pupil/student	76(6,94)	1 (3,57)	
Other	2(0,18)	0 (00)	
Total	1096(100)	28 (100)	
Education level			
Unschooling	195(17,8)	12 (42,86)	
Primary	347 (31,66)	9 (32,14)	
Secondary	463 (42,24)	6 (21,43)	0 ,0052
University	91(8,3)	1 (3,57)	
Total	1096 (100)	28 (100)	
Marital statut			
Married	266 (24,28)	3 (10,71)	
Widows	2 (0,18)	0 (00)	
Singles /concubinages	828 (75,54)	25 (89,29)	
Total	1096 (100)	28 (100)	

3.3. Distribution of Parturients Screened for Certain Obstetrical Aspects

Most HIV + women did not attend quality antenatal care, as did HIV-positive women. Most HIV + patients did not complete their pregnancy check and most of the women in our series gave birth vaginal.

Table 2. Distribution of parturients Screened for Certain Obstetrical Aspects

	HIV - n (%)	HIV+ n(%)	p-valeur
Prenatal consultation			
Yes	1025(93,52)	24(85,71)	
No	71(6,48)	4(14,29)	0,074
Total	1096(100)	28(100)	
Number of prenatal consultation			
No	63 (5,74)	4(14,29)	
1-2	188(17,15)	17(60,71)	
3-4	198(18,04)	1(3,57)	
>4	647(59,04)	6(21,43)	
Total	1096(100)	28(100)	
Pregnancy checkup			
Not done	63 (5,74)	15(53,57)	
Incomplete	880(80,31)	11(39,29)	
Full	153(13,95)	2(7,14)	
Total	1096(100)	28(100)	
Childbirth			
Pathway first	468(42,70)	21(75)	
cesarean	628(57,3)	7(25)	0,004
Total	1096(100)	28(100)	
Serology done during pregnancy			
Yes	784(71,53)	6(21,43)	< 0,05
No	312(28,47)	22(78,5)	
TOTAL	1096(100)	28(100)	
Reason of serology not made			
No follow-up	63(20,19)	4(18,18)	
Partner's opinion	106(33,97)	0(00)	
Not proposed	26(8,33)	1(4,55)	0,0004
Fear of result	117(37,51)	17(77,27)	
Total	312(100)	22(100)	

3.4. Positive Parturient Reactions

The response of parturients tested positive at admission was crying in the majority of cases (50%).

Table 3. Distribution of HIV + Parturients at the Announcement of the Result

	Number (%)
Mutism	4(16,67)
Tears	20(50)
Resignation	6(33,33)

Table 4. Neonatal aspects of children from parturient screenings

	HIV- n (%)	HIV+ n (%)
Apgar score		
0	28(2,49)	9(30)
1-7	87(7,74)	2(6,67)
≥7	1008(89,77)	19(63,33)
Total	1123(100)	30(100)
Condition of newborns		
Deceased	28(2,49)	9(30)
Living	1095(97,51)	21(70)
Total	1123(100)	30(100)

4. Discussion

4.1. Epidemiological Aspects

4.1.1. Age

The average age in our series was 27 years old, with a prevalence of 25-year-olds at age 30 among the parturients tested negative on admission. This same observation was made at the maternity center of the reference center of the commune of Bamako in Mali [7] in 2010. The average age of parturients tested positive at the admission was 29 years with a predominance of the 25 to 30 years old. Other studies have mentioned this same age group. Doumbia et al [8] in Niger, Chama et al [9] in Nigeria reported that the age range of 25 to 30 years was in the majority. Dagba in Togo [5] in 2013 reported an age range of 30 to 35 years. These numbers are a good reflection of the general population's tendency for women to be sexually active.

4.1.2. Marital Status

The majority of parturients in our series were single or cohabiting: 89.29% of parturients tested positive and 75.54% of parturients tested negative. Indeed, according to Welky et al [10], celibacy leads to multiparty sexuality. HIV infection affected monogamous couples (82.14%) more than polygamous couples (17.86%). There are several reasons for this disparity: polygamy would create isolated small groups in which the AIDS virus would be trapped, the age of the husband would often be high, and the number of sexual relations per married woman would be lower than in a monogamous couple, women have less access to sex with young men. In other words, polygamous marriage reduces the risk of extramarital relationships and therefore the risk of sexually transmitted infections such as HIV [11].

4.2. Obstetrical Aspects

4.2.1. Prenatal Consultation

In our series: 14.29% of parturient screened positive admission did not realize their prenatal consultation against 6.48% of parturientes tested negative.

The reason given was the lack of financial means. In fact, the socio-economic level and the low level of schooling are obstacles to the use of maternal and child health services [12].

4.2.2. Mode of Delivery

The majority of parturients in our series gave birth vaginally. 75% of parturients tested positive on admission gave birth vaginally because they had arrived at an advanced stage of labor (end of active phase or expulsion phase) and obstetric conditions were favorable. The same results were obtained by Dembele in Mali [7] who found 89.2% vaginal delivery and 10.8% cesarean section. Twenty-five percent (25%) of HIV-positive parturients in our study received a caesarean section of caution in the prevention of mother-to-child transmission of HIV. Indeed, the risk of HIV transmission from mother to child without PMTCT intervention is 20 to 40% [6]. The risk of transmission to the child is higher when the viral load of

the mother is high. The viral load is often high in the mother in the following situations: recent HIV infection and AIDS [6]. Caesarean section has always been considered an integral part of the prevention of mother-to-child transmission of HIV. Caesarean section in HIV-positive women, however, must be taken with tweezers since it is not stripped of risk in the operated (complications related to caesarean section) and that it also runs a risk of contamination to the operator.

4.3. Screening

4.3.1. Retroviral serology during Pregnancy

In our series: 78.5% of HIV-positive parturients did not perform retroviral serology during pregnancy. The main reasons given were: fear of the result (77.27%), non-follow-up of prenatal consultations (18.18%) and in 4.55% HIV serology was not proposed. Some of these causes are similar to those advanced by Perez et al [13], in his study According to some authors as Muchedzi et al [15] and Pai et al [16], the factors favoring a good acceptability of HIV testing during pregnancy are the confidentiality of the results, the perception of the benefit of the examination, good information on AIDS and the availability of antiretrovirals. This shows, on the one hand, the need to continue the awareness of PMTCT-focused population, the need for pre-test counseling and post-test counseling.

4.3.2. Women's Reaction

The reaction of the parturients to the announcement of the result crying (50%), resignation (33.33%) and muteness (16.67%). The results are similar to those found by Dembele [7] in Mali in 2010 and Binyerem et al [17] in Nigeria. If the majority of parturient reactions are crying, this is easily understood because the discovery of seropositivity is experienced as a tragedy. For this reason, it is critical that PMTCT programs work with community leaders to address HIV-related stigma and discrimination to protect the human rights of people living with HIV as well as those living with HIV. are at risk [6].

4.4. Neonatals Aspects

Nine children out of 30 deliveries of the parturients tested positive (30%) were stillborn macerated. No newborn was therefore dead at birth. Dembele [7] in Mali found similar results This significant difference can be explained by the fact that a good surveillance and a balanced diet would have allowed HIV-positive women to carry their pregnancy to term thus preserving the fetus of the fetuses. complications related to low birth weight. Other authors such as Dreyfuss et al [18] also mentioned that antiretroviral treatment, improved nutritional status and better management of malaria during pregnancy can significantly improve the status of newborns.

5. Conclusion

At the end of this study on HIV testing, it emerged that testing for HIV in the delivery room brings a benefit in the

management of parturients especially those screened positive admission and newborns from the HIV-positive mothers. It is important for public authorities and psychosocial partners to improve the quality of care, strengthen the training of PMTCT staff especially screening in the delivery room, while making available the inputs. This will further reduce the prevalence curve of this pandemic to achieve the elimination of mother-to-child transmission of HIV (ETME).

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