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Research Article

Successful Implementation of Prevention of HIV Mother-to-child Transmission (PMTCT) in Tlemcen, Algeria

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Abstract

Prevention of mother-to-child human immunodeficiency virus transmission programs are increasingly implemented in antenatal clinics. Elimination of mother and child HIV infection (EMTCT) has been advocated worldwide. In this study we learn about the progress and practice of EMTCT in Tlemcen Algeria.

Keywords: Prevention of Mother-to-child-HIV; Antenatal Clinics; Algeria.

1.Background

Algeria accounts for .5% of the population living with HIV. This may be due to the low coverage of the mother-to-child transmission prevention (PMTCT). This has been an obstacle to achieving the goal of reducing HIV mother-to-child transmission. Restricted access to prenatal care (ANC) services is one of the reasons why PMTCT is so narrow. In addition, access to PMTCT services has been reported to be restricted due to geographical, social and financial barriers. Fear of HIV testing, lack of awareness of HIV status, confidentiality, and stigma are documented [1,2]. This report examined the feasibility and acceptability of integrating HIV testing in the ANC in Tlemcen. The HIV prevalence and linkage to PMTCT services among pregnant women were also determined, with the aim of generating evidence for an alternative model of service delivery that will improve case finding and linkage to PMTCT services in Algeria.

2.Methods

it is a prospective descriptive cross-sectional and interventional study. Interviews were conducted with a structured questionnaire with a convenience sample of 5235 pregnant women seen during their first prenatal consultation in 08 Basic Health Centers (PMI) in the wilaya of Tlemcen (Algeria) for a period of 05 years June 2016- june 2020:a screening test for HIV infection was carried out after the free and informed consent of the pregnant women, covering:

- Screening systematically offered to pregnant women consulting prenatal at the level of the wilaya of Tlemcen by directly involving the health department and their head of prevention, thus the responsible health actors at the level of the health centers protection of mothers and children, and within the framework of the application of national guidelines for the systematization of HIV counseling prenatal HIV Women screened positive will be monitored and treated at the department of infectious diseases of the university hospital center Tlemcen.
- The delivery will be taken care of in the reference maternity of Tlemcen
- The treatment-follow-up of children born to HIV-positive mothers will first be carried out neonatology department of the reference maternity unit: prescription of the zidovudine alone or combined in the first hours after birth for 4-6 weeks (against temporary indication of BGC) then referred to CHU Tlemcen pediatric service for clinical and biological follow-up.
- Ensure an early diagnosis of contamination after one month of birth.

3.Results

- A total of 5235 pregnant women with a median age of 25 years (IQR: 22-28) and mean gestational age of 4.7 months (SD: ± 2.3) in 08 health basic centers were offered HIV testing. Of these, (%) were married, 49.1% had completed secondary education, and 67.4% were engaged in occupations. Approximately 70.3% (/) were aged between 20 and 29 years.
- 5235 pregnant women were in prenatal consultation from june 2016 to june 2020.
- 3845 pregnant women (FE) received PMTCT HIV counseling.
- The acceptance rate for an HIV test was 79.14%.
- The HIV seropositivity rate was 0.59% (19/3043 patients)
- The rate of mother-to-child transmission was equivalent to zero.

Table 2: Distribution of HIV prevalence concerning the age from 2016 to 2020 among pregnant women (PW) in Tlemcen.

Age	PW tested	HIV +PW	Prevalence ‰
< 20 years	252	02	7.93
20-25 years	1073	06	5.59
25-30 years	1247	08	6.41
30-35 years	285	02	7.01
> 35 years	186	01	5.37
TOTAL	3043	19	6.24

Table 1: Distribution of HIV prevalence from 2016 to 2020among pregnant women (PW) in Tlemcen.

Years	Pregnant women	Pregnant women seen	Nb of tests	HIV + PW	Prevalence %	Global efficacy %
June 16-May 17	1270	930	419	2	4.77	33
June 17-May 18	1435	877	730	4	5.47	50.87
June 18-May 19	1391	1020	914	5	5.47	65.70
June 19-May20	1139	1018	980	8	8.16	86
Total	5235	3845	3043	19	6.24	58.12

3.1.Seroprevalence of HIV infection

The overall prevalence of HIV infection in pregnant women in the wilaya of Tlemcen was: 0.624% which corresponds to 6.24 per thousand. All HIV-positive pregnant women were infected with HIV 1.

3.1.1.Distribution of HIV prevalence from 2016 to 2020 in Tlemcen.

In our study, there is a slight increase in HIV seroprevalence during the 2nd and 3rd year of the study and a maximum prevalence during the last year (0.816%) of the same for the effectiveness of the study. (table 1)

3.1.2.Distribution of HIV prevalence concerning the age from 2016 to 2020 among pregnant women (PW) in Tlemcen.

In our study, there is a slight increase in HIV seroprevalence when the pregnant women is aged less than 20 years (table 2).

3.1.3.Distribution of HIV prevalence concerning the residency from 2016 to 2020 among pregnant women (PW) in Tlemcen.

Tlemcen represents the highest seroprevalence estimated at 0.75%, Nedroma represents the lowest seroprevalence (0.28%) .(table 3).

3.1.4.Distribution of the pregnant women concerning the parity among pregnant women (PW) from 2016 to 2020 in Tlemcen.

65% of pregnant women were at their first pregnancy. (table 4)

3.1.5.Distribution of the pregnant women concerning the education status of HIV pregnant women from 2016 to 2020 in Tlemcen.

55% had completed secondary education.

Table 3: Distribution of HIV prevalence concerning the residency among pregnant women (PW) from 2016 to 2020 in Tlemcen.

	Tlemcen	Ouled mimoun	Maghnia	Remchi	Nedroma	Total
PW screened	800	555	680	660	348	3043
HIV +PW	06	03	05	4	01	19
Seroprevalence (%)	**0.75%**	0.54	0.73 %	0.60%	0.28 %	0.62%

Table 4: Distribution of HIV prevalence concerning the parity among PW from 2016 to 2020 in Tlemcen.

PW Captured	1st pregnancy	2d pregnancy	3d pregnancy	4th pregnancy	Total
Number	3430	730	865	210	5235
%	65.52	13.94	16.52	4.01	100

Table 5: Distribution of HIV prevalence concerning the counseling of HIV pregnant women among pregnant women (PW) from 2016 to 2020 in antenatal clinics (ANC), Tlemcen.

PW	Council pretest	Nb of tests	Refusal	HIV positive
5235	3845	3043	802	19
%	73,44%	79,14%	20,85%	0,624%

3.2.Acceptability of HIV testing :Characteristics of HIV-positive pregnant women.

The characteristics of pregnant women who accepted HIV testing are :

- 5235 pregnant women were offered HIV testing. 3043 accepted HIV testing, with 19 (.5%) showing positive HIV results. Age, education, marital status, occupation and residency did not have any association with the acceptability of the HIV testing. (table 5)
- There is no significant difference between HIV negative pregnant women and HIV positive pregnant women concerning the age ($KHI^2 = 1.2553$; p value = .868).
- There is no significant difference between HIV negative pregnant women and HIV positive pregnant women concerning the residency ($KHI^2 = 1.03$; p value = .9052). The level of education, the occupation and the marital status had no significant difference. The absence of a risk factor is the main cause of non-acceptability of screening (49.89%) followed by the agreement of the spouse (20.06%), the fear of the discovery of HIV infection during pregnancy (17.58%). (table 6)

Table 6: Causes of HIV testing refusal.

	Number of cases	%
Fear of HIV infection	141	17.58
Absence of risk factor	400	49.89
Take opinion of husband	161	20.06
Undetermined	100	12.46
Total	802	100

Characteristics of the HIV positive pregnant women:

- 83.33% were married. 55.55% were unemployed. 38% were likely in their first trimester.
- All HIV pregnant women were put on a triple antiretroviral therapy immediately.
- The average initial HIV viral load was (75690 + or - 320).No side effects from the treatment. 77.77% had vaginal delivery. 04 out of 18 had cesarean section (two for obstetrical reasons)
- All our patients reported stigma.
- 88.8% HIV PCR results were negative at delivery.
- HIV PCR result of newborn at 3 months were negative at 100%.
- HIV PCR results of newborn at 6 months were negative at 100%.
- All the children at 18 months had negative HIV test.

4.Discussion

The results of this study determine acceptability and outcomes of HIV integration among pregnant women. These results confirm high acceptability of HIV testing by pregnant women [3]. The causes of low uptake of HIV testing and PMTCT services have been widely published. Algeria national policy recommends HIV testing to all pregnant women. We can use PMTCT program data for HIV surveillance among pregnant women [4,5].

In Tlemcen, there were social factors such as low involvement of men for their wives to access ANC in health facilities. The factors that influenced PMTCT were social demographics, distance to medical facilities, number of ANC visits, knowledge and awareness, partner involvement and stigma. In Kenya, there are five approaches to improving the programmatic scope of PMTCT. Reach all target groups through planning and management resources, outreach services, assist service providers, and connect communities to service delivery and intervention monitoring. The percentage of pregnant women who are HIV positive is as follows. The data collected is limited and not all pregnant women participated in antenatal care and cannot be known accurately. This problem also existed in Kenya and Tanzania for certain reasons. The pregnant woman did not come to prenatal care because her husband forbade her wife from visiting ANC. Religious leaders banned believers from seeking medical services because they felt the services were expensive and inconsistent with economic activity. Serodiscordants and HIV-positive partners are reported to be more supportive than partners who refuse to test. The latter is psychologically or physically abusive and can prevent women from adhering to swtreatment. The presence of domestic violence before and/or after disclosure of HIV status has become one of the main reasons for PMTCT violations reported by women. Therefore, although the importance of partner involvement in HIV testing needs to be emphasized, basic knowledge of HIV infection is the best predictor of HIV testing. Promoting HIV awareness among young women and men through partner-involved healthcare provider communication strategies and health education will make HIV testing more acceptable and involve more male partners in the service.

Conclusion

This study showed that the implementation model can effectively improve access to PMTCT services and overcome barriers to access to PMTCT services.

5.Bibliography

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