

LETTER TO THE EDITOR

The unexposed world of the (HIV-negative) exposed

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Dear Editor,

As recently discussed by Di Biagio *et al.* [1], the number of missed opportunities to prevent mother-to-child transmission (MTCT) is unacceptable in Italy. Only women with missed diagnoses of HIV infection that caused newborn infection were included in Di Biagio *et al.*'s study; the number of women who do not receive a diagnosis during pregnancy and do not transmit the infection to the newborn is even higher.

In this Letter, we report the findings of a study of exposed children born to HIV-positive mothers and observed in a paediatric hospital in an Italian setting. We included mothers who came to our centre for assessment of the HIV status of the child.

Eighty-eight mothers were observed between 2006 and 2017 at the Bambino Gesù Hospital, Rome, an HIV reference centre for central and southern Italy (Table 1). Fifty-four (51%) were aware of their HIV status before pregnancy and were taking antiretroviral therapy. Thirty-four mothers (39%) were diagnosed during (76%) or after (24%) after delivery. We decided to better characterize this group as they have the highest risk of MTCT.

Of the mothers of these 34 HIV-exposed children (56% born to European mothers, 29% born to African mothers and 15% born to mothers from South America), 76% received highly active antiretroviral therapy (HAART) during pregnancy, 65% underwent a caesarean section and only five breastfed their children (they discovered their status after delivery). Maternal risk factors for HIV infection were risky sexual behaviour in 88% of women and injecting drug use in 12%. Regarding knowledge of the Italian language, 47% of mothers were able to communicate fully in Italian, 29% had poor or no knowledge of the language and 21% were able to comprehend basic information. Exposed children had a median birth weight of 2910 g (range 830–3980 g), the Apgar score was ≤ 7

Table 1 Characteristics of 88 mothers observed between 2006 and 2017 at the Bambino Gesù Hospital, Rome, Italy

	Overall		Unaware of their HIV status at conception	
	<i>n</i>	% of column	<i>n</i>	% of column
<i>n</i>	88		34	
Risk factor of the mother				
Vertical infection	7	8	–	–
Risky sexual behaviour	67	76	30	88
Injecting drug use	12	14	4	12
Not reported	2	2	–	–
Nationality of the mother				
European	60	68	19	56
African	19	22	10	29
South American	7	8	5	15
Asian	2	2	–	–
Antiretroviral therapy				
HAART	63	72	26	76
No HAART	20	23	8	24
Not reported	5	6	–	–
Feeding of the infant				
Formula	68	77	28	85
Breast	15	17	5	15
Not reported	5	6	–	–
Diagnosis				
Before conception	51	58	–	–
During pregnancy	20	23	17	50
At delivery	9	10	9	26
After delivery	8	9	8	24

HAART, highly active antiretroviral therapy.

in 8% of cases and they were born at a median of 38 weeks (range 25–42 weeks) of gestation.

Of the 26 mothers who were diagnosed during pregnancy, nine (26%) were diagnosed at delivery. Three of these mothers had an earlier negative HIV test during pregnancy (two in the first trimester and one during the third trimester) and were never re-tested.

Low-quality antenatal care and delays in HIV testing during pregnancy are matters of concern in Italy, where HIV testing is recommended as part of preconception and prenatal care [2]. A survey carried out in 2011 in a sample of 1568 women delivering children at 36 maternity hospitals in the Lazio region found that 88.2% of

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pregnant women underwent the test but only 33.6% received it as part of preconception care [3]. Women who missed the test tended to be younger, with a lower education level, a lower HIV knowledge score and fewer visits during pregnancy [3].

Thus, despite the enormous progress made in recent years in the prevention of MTCT of HIV, we continue to observe in European countries late diagnosis in HIV-positive mothers. It is important to put in place health policies that are not limited to increasing awareness of HIV in the general population but that also aim to achieve increased awareness in health personnel (gynaecologists, obstetricians and all those who work with pregnant women) of the importance of careful diagnostic monitoring of all sexually transmitted diseases throughout pregnancy. Furthermore, it is desirable that women should

have equitable access to periconceptional counselling and screening for congenital infections.

References

- 1 Biagio AD, Taramasso L, Gustinetti G *et al.* Missed opportunities to prevent mother-to-child transmission of HIV in Italy. *HIV Med* 2019;20(5):330–336.
- 2 Antinori A, Marcotullio S, Ammassari A *et al.* Italian guidelines for the use of antiretroviral agents and the diagnostic-clinical management of HIV-1 infected persons. *New Microbiol* 2011;34(2):109–146.
- 3 Valle S, Pezzotti P, Florida M *et al.* Percentage and determinants of missed HIV testing in pregnancy: a survey of women delivering in the Lazio region, Italy. *AIDS Care* 2014;26(7):899–906.