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LETTER TO THE EDITOR

Impact of immigration on HIV mother-to-child transmission in Western Europe

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In their recent article [1], French and colleagues nicely describe improvements in the timeliness of antenatal care booking and antiretroviral therapy (ART) initiation in HIV-infected pregnant women in the UK in recent years, which have allowed the rates of HIV mother-to-child transmission (HIV MTCT) to consistently fall below 0.5%. Notably, three-quarters of their population were women from sub-Saharan Africa (SSA). In 2014, 57.1% of newly diagnosed HIV-infected women in Spain were immigrants, mainly from SSA and Latin America [2]. Both figures reflect the impact of immigration in the current epidemiology of HIV MTCT in Western Europe.

The NENEXP cohort study of HIV-exposed mother–-child pairs in Catalonia (Spain; see Appendix) prospectively included 909 pregnant women, 1009 pregnancies and 1032 children from 2000 to 2014 [3]. Overall, 32.7% of the mothers were of foreign origin (mostly from SSA; 53.4%) and this rate increased over time ($P < 0.0001$). When compared with autochthonous mothers, immigrant women were younger at HIV diagnosis, mainly heterosexually infected, more often diagnosed during their first pregnancy, younger at delivery of the first child and less frequently coinfected with hepatitis C virus. During pregnancy, they were less prone to injecting drug use, and more often used antenatal ART and reached delivery with undetectable HIV viral loads. No differences were observed in immunological status during pregnancy, gestational age at birth or HIV MTCT rate, which was 1.4% [95% confidence interval (CI) 0.8–2.3%] in the whole cohort. In multivariable analysis, only detectable viral load at delivery was associated with a higher risk for HIV MTCT ($P = 0.01$) [3], as in other cohort studies in Europe [4].

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*See Appendix.

The earlier ART is initiated during pregnancy, the lower the risk for HIV MTCT [5]. Current Spanish guidelines recommend ART initiation at 12–14 gestational weeks in untreated HIV-infected pregnant women [6], earlier than UK guidelines (by 24 gestational weeks) [7]. In the UK, in previously diagnosed women, late booking of first antenatal appointment was associated with foreign origin. In newly diagnosed women, late booking was also associated with SSA origin and women from most African regions started ART later than those who were UK-born. Twelve of 16 perinatally infected children (HIV MTCT crude rate 0.4%) were born to women booking late, 11 of whom were not on ART at conception. Immigrant mothers in the NENEXP cohort were more commonly diagnosed with HIV infection during their first pregnancy but, in contrast to UK pregnancies of foreign origin, were more likely to deliver with optimal control of HIV replication than autochthonous Catalan women. Unfortunately, data on timing of booking for antenatal care or antenatal ART initiation were not available in NENEXP. Different study periods and methods make comparison between studies difficult. However, it should also be kept in mind that the HIV/AIDS epidemic in Spain, especially in the early years, was mainly driven by injecting drug use, a condition associated with social inequalities (educational and economic level, and health service availability) which increase the risk of HIV MTCT [8]. While social and cultural barriers need to be overcome to allow access of migrant HIV-infected pregnant women to optimal antenatal care services, our results emphasize the need to identify the risk factors of HIV MTCT at a local level, in order to implement specific interventions.

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Appendix: The NENEXP cohort study

The NENEXP cohort study is still ongoing and includes HIV-exposed mother–child pairs in whom maternal HIV infection is diagnosed before or during pregnancy, at birth or within 72 h after delivery. Maternal informed consent is also required. The study was partially funded by FIPSE Grants 3081/99, 36352/02, 36535/05 and 36721/08 (Spanish Ministry of Health). Current participating centres and investigators are: Hospital Universitari Vall d'Hebron, Barcelona (Pere Soler-Palacín and Antoinette Frick), Hospital Universitari del Mar, Barcelona (Antonio Mur), Hospital Universitari Germans Trías I Pujol, Badalona (María Méndez and Carlos Rodrigo), Hospital Universitari Josep Trueta, Girona (Lluís Mayol), Hospital Universitari Arnau de Vilanova, Lleida (Teresa Vallmanya), Hospital Universitari Joan XXIII, Tarragona (Olga Calavia), Consorci Sanitari del Maresme, Mataró (Lourdes García), Hospital General de Granollers (Maite Coll), Corporació Sanitària Parc Taulí, Sabadell (Valentí Pineda), Hospital Universitari Sant Joan, Reus (Neus Rius), Fundació Althaia, Manresa (Núria Rovira), and Centre d'Estudis Epidemiològics de Catalunya (Jordi Casabona and Dolors Carnicer-Pont).

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