Access to Healthcare Services among Immigrant Patients with HIV in Perugia

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Introduction

According to recent estimates of the World Health Organization, the number of people with HIV is approximately 35.3 million worldwide, and Sub-Saharan Africa remains most severely affected, with nearly one in every 20 adults living with HIV and accounting for nearly 71% of the people living with HIV worldwide [1].

Migration flows have a considerable impact on the epidemiology of HIV infection and its clinical management [2,3].

Immigrant populations are known to be a higher risk of acquiring HIV infection, they are more vulnerable because subject to numerous factors of discomfort: coming from countries highly endemic for HIV (Africa, South-America, Eastern Europe, Asia), social exclusion, language, cultural and socio-economic barriers. These individual and social factors must be added: the problems related to difficulties in access to health services for the diagnosis and treatment of disease, the limited social and legal protection, and not least the difficulty of access to information on prevention. All of this involves a greater risk of acquisition of HIV infection and a more rapid progression towards the final stage of the disease, that is, to AIDS [2,3].

Italy is among the countries that attract the largest number of immigrants. The AIDS Operative Center (COA) of the Italian National Institute of Health reported 3608 new cases of HIV infection in Italy for the year ending 2013, with 24% affecting foreigners (incidence of 19.7 cases/100.000 foreign residents/year) [4].

Migratory flows and the significant increase in international trade involving widely this country, lead us to reflect on the role of foreigners in the context of the epidemic of HIV infection, both in terms of the risk of infection in this country, both for the possibility that they introduce new cases of infection in Italy. In fact, parallel to the increase of immigration, there has been an increase in the proportion of new diagnoses of HIV infection among foreigners.

According to studies by the Italian National Institute of Health, among the causes of this increase is detected on the one hand the increase in migration flows bound for Italy, on the other hand, the incidence of people from countries where the infection is endemic, as Sub-Saharan Africa or Central - South America [4].

The aim of this study was to give a view of HIV infection in migrants that were referred to our Clinic of Infectious Disease of Perugia between 2000 and 2011 and followed for at least one year. We investigated the socio-demographic characteristics, immunological and clinical profiles, and future difficulties and access to our health centres, punctuality in presenting themselves regularly for check-ups and compliance to follow the therapy.

Data presented in this paper regards HIV patients referred to the Centre of Perugia included in a multicentre study coordinated by the University Division of Infectious and Tropical Disease at the University of Brescia, including eight other Italian infectious disease departments [2].

Methods

We retrospectively analysed data for all foreign born HIV-infected patients aged 18 or older whose accessed the Clinic of Infectious Diseases of Perugia between 1st January 2000 and 31st December 2010 and were followed-up for at least 1 year.

Patient data were obtained from the software of the Clinic for Infectious Diseases of Perugia and from clinical files found its archive on social and demographic and viro-immunological profiles at baseline and during the follow-up, clinical manifestations related to HIV infection, co-infections and the antiretroviral therapy regimen prescribed.

Results

Between 2000 and 2010, 260 foreign nationals were referred to our Center, 92 of which were excluded from our analysis because they had not been followed at least one full year: 46 sub-Saharan African, 25 South American, 17 European, 2 Indian and 2 North America. The sample considered for the analysis included therefore 186 patients of which 52% were female and 48% male (Figure 1).

The average patient age at the time of the first access to our Centre was 32 years. The most frequent patient - reported mode of transmission of HIV infection was through heterosexual (56%) and homosexual or bisexual contact (14.9%) most of which coming from South America.
Approximately 35.7% of the patients had CD4+ cell levels below 200/µL (46% males and 27% females) (Table 1).

Patients from Africa and Asia were resulted being the most immunocompromised at their first access to the Centre (data not shown), whereas 79.8% of immigrants had a positive viremia (≥ 20 copies/ml).

A previous medical history or current presence of AIDS was detected in 39% of the included patients. The most commonly observed opportunistic diseases were candidiasis of the esophageous (21%), tuberculosis (13%) and cervical cancer (13%). Screening by TPHA (Treponema pallidum Haemoagglutination Assay) resulted in positivity for 22% of patients, while the VDRL (Venereal Disease Research Laboratory) resulted being positive in 20% of patients. Most patients with active infection or untreated syphilis were homo/bisexual (52%) with most originating from Central and South America. Overall, 9% of all patients were HBsAg positive and 4% HCV positive. Only 6% of all patients were already on antiretroviral therapy at the time of their first visit to our Centre.

At the end of the follow-up visit, we found that 95.2% of the patients were taking antiretroviral therapy. The voluntary discontinuation of antiretroviral therapy was recorded more frequently among patients from South America.

The value of CD4+ lymphocytes at the beginning and at the end of follow-up resulted being statistically significant (Figures 2 and 3).

Reasons given for discontinuation of antiretroviral therapy during follow-up, listed in decreasing order of frequency, included: difficulty in following the time regimen, followed by drug toxicity, intolerance, ineffectiveness of therapy, and virological failure.

<table>
<thead>
<tr>
<th>CD4 baseline</th>
<th>Female</th>
<th>Male</th>
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<tbody>
<tr>
<td>CD4&lt;50</td>
<td>10 (11.5)</td>
<td>16 (19.7)</td>
</tr>
<tr>
<td>50 ≤ CD4&lt;100</td>
<td>3 (3.4)</td>
<td>3 (3.7)</td>
</tr>
<tr>
<td>100 ≤ CD4&lt;200</td>
<td>10 (11.5)</td>
<td>18 (22.2)</td>
</tr>
<tr>
<td>200 ≤ CD4&lt;350</td>
<td>24 (27.6)</td>
<td>11 (13.6)</td>
</tr>
<tr>
<td>350 ≤ CD4&lt;500</td>
<td>17 (19.5)</td>
<td>12 (14.8)</td>
</tr>
<tr>
<td>CD4 ≤ 500</td>
<td>23 (26.4)</td>
<td>21 (26)</td>
</tr>
</tbody>
</table>

**Table 1:** Shows the distribution of CD4 at baseline for gender.

Discussion

This study highlights the vulnerability and its consequences for foreign-born patients with HIV. Late arrival to health services and an irregularity in patient monitoring (35% lost before one year) have a relevant impact on clinical management and a successful follow-up. Of the 168 patients included in the study, at the first visit 36/168 (21.4%) had a HIV viremia less than or equal to 50 copies/ml. At the end of one year follow-up, 94/168 patients resulted being under the 50 copy/ml threshold. These results suggest that only 58/132 (44%) reached the target of a viremia below 50 copies/ml. Therefore, out of 260 patients recorded at our Centre between 2000 and 2011, after one year of follow up, 36% had suppressed viremia. Moreover, of the 132 patients who started antiretroviral therapy only 44% had a suppressed viremia after the first year of follow up.

Patients lost during follow up not only risk their own clinical outcomes due to the development of life-threatening complications, but they may also be hindering the battle to circumspect the spread of disease.

References

3. Infezione da Ministero della Salute e Istituto Superiore di Sanità (CNAIDS) (2013) HIV e popolazione migrante: studio per la determinazione di indicatori ECDC (European Centre for Disease Control) per la prevenzione dell’infezione da HIV nella popolazione migrante.