Lymphoma in HIV-2 Infected Patients in cART era: a 15 Patients Single Center Series

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INTRODUCTION

- Lymphoma is a common HIV-1-associated malignancy, observed in 4-5% of patients long-life
- Since introduction of ART, incidence has declined and is estimated in France 1.3/1000 PY
- Although prognostic has improved, clinical presentation is often aggressive and it remains a major cause of mortality.
- HIV-2 infection is restricted essentially to West Africa, and remains sporadic in the rest of the World
- In Europe, the great majority of HIV-2-infected patients is in France and Portugal
- In France, HIV-2 represent 1.6% of all HIV infections
- Despite differences in pathogenicity and disease progression between HIV-2 and HIV-1 infection, similar patterns of opportunistic complications are reported at similar CD4 level.
- However, lymphoma has been rarely described in HIV-2 infected patients.

OBJECTIVE

To describe HIV-2 lymphoma and compare with HIV-1 lymphoma

METHODS

- Patients were recruited from an ongoing prospective single-center cohort of HIV-lymphoma from Saint-Louis hospital, Paris, France, between January 1996 and December 2015
- Characteristics of HIV-2 patients were compared with HIV-1 patients included in the cohort, without statistical comparison due to the small number of patients
- Prevalence and incidence of HIV-2-associated lymphoma were estimated from an independent cohort: ANRS-CO5 cohort
- ANRS-CO5 cohort is a national prospective multicentric French cohort of HIV-2 patients, including 1068 pts in December 2015
- Prevalence of HIV-2 infection in our institution was determined from the virological department of Saint-Louis hospital.

RESULTS

Epidemiology

- Prevalence and incidence of lymphoma in HIV-2-infected pts (French HIV-2 ANRS-COS cohort)
  - N = 18 lymphomas / 1068 HIV-2
  - Incidence = 0.9/1000 PA
  - Prevalence = 1.7%
  - Prevalence of HIV-2 infection in HIV-lymphoma (Saint-Louis hospital lymphoma cohort)
  - N = 15 HIV-2 pts / 903 HIV-lymphoma
  - Prevalence = 1.6%
- Prevalence of HIV-2 infection in Saint-Louis hospital (virological laboratory data, Saint-Louis hospital)
  - N = 62 HIV-2 pts / 3000 HIV-infected pts
  - Prevalence = 2%

Characteristics of HIV-2 patients at lymphoma diagnosis comparison with HIV-1-lymphoma

N = 13 HIV-2
N = 2 dual HIV-1/2

Epidemiological

<table>
<thead>
<tr>
<th>HIV-2 (n=13)</th>
<th>HIV-1 (n=134)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, %</td>
<td>33</td>
</tr>
<tr>
<td>Age, median years</td>
<td>51</td>
</tr>
<tr>
<td>Originally from West Africa, %</td>
<td>86</td>
</tr>
<tr>
<td>HIV</td>
<td></td>
</tr>
<tr>
<td>Duration of infection, median years</td>
<td>6.6</td>
</tr>
<tr>
<td>History of AIDS, %</td>
<td>20</td>
</tr>
<tr>
<td>CD4 count cell × 10^9/L</td>
<td>209</td>
</tr>
<tr>
<td>Undetectable plasma HIV-RNA, %</td>
<td>67</td>
</tr>
<tr>
<td>On cART, %</td>
<td>53</td>
</tr>
</tbody>
</table>

Aggressive lymphoma:

- stage III/IV: 73% HIV-2 vs 77% HIV-1
- Performans status >2: 53% HIV-2 vs 38% HIV-1
- EBV-associated tumor: 25% HIV-2 vs 30% HIV-1

Conclusions

- First series of lymphoma in HIV-2 patients
- Incidence of HIV-2-lymphoma is close to the incidence of HIV-1-lymphoma in France
- Compared to HIV-1 patients, HIV-2 patients developed lymphoma at a similar CD4 count level, but with a higher proportion of patients with controlled HIV infection
- Clinical presentation is close to HIV-1 patients, with aggressive and extended stage lymphoma, and large range of histological lymphoma subtypes
- Although all patients received adapted chemotherapy and cART, HIV-2 lymphoma displays an unexpected poor survival with high chemotheraoy toxicity, that should be confirmed by a larger series
- This poor outcome could be explained by a weaker immune reconstitution despite virological control.