HIV and CKD Stage 5: Outcomes and Clinical Characteristics among Patients In France and the United States

Ghazal Soleimani, MEd 1, Cécile Couchoud, MD 2, Mary Jo Trepka, MD, MSPH 3, Timothy Page, PhD 3, Jerome Tourret, MD 4

1) Department of Epidemiology and Biostatistics, Robert Stempel School of Public Health & Social Work, Florida International University, 11200 SW 8th Street, HLS II-595, Miami, FL 33199.
2) Agence de la biomédecine, Coordination nationale de REIN, 1 avenue du Stade de France, SAINT DENIS LA PLAINE CEDEX, Paris, 93212, France.
3) Department of Health Policy and Management, Robert Stempel School of Public Health and Social Work, Florida International University, 11200 SW 8th St (HLS 582), Miami, FL 33199.
4) Groupe Hospitalier Pitié Salpêtrière, Service de Néphrologie du Pr Deray, 47-83 Bd de l'Hôpital, 75651, Paris Cedex 13, France.

I. Background and Significance

- Nearly 1% of all patients with stage 5 chronic kidney disease (CKD-stage-5) in the US and Europe are estimated to be infected with human immunodeficiency virus (HIV), with their dual pathology representing a growing therapeutic challenge.
- The aim of this study was to determine the point prevalence and clinical characteristics of HIV-infected patients in the French Renal Epidemiology Information Network (REIN) registry.

II. Methods

- Cross-sectional analysis of all HIV-infected registry patients undergoing renal replacement therapy (RRT) (i.e. hemodialysis [HD], peritoneal-dialysis [PD], or renal transplantation), as of December 31, 2007.
- Variables analyzed included co-morbidities, age, gender, body mass index (BMI), country of origin, and time on RRT.
- Chi-square testing; and t-tests were used as appropriate with SAS (version 9.2).
- Three prevalence rates were calculated for HIV-infected RRT patients, using as denominators: 1) French population; 2) French HIV-infected adult population; 3) French RRT population.

III. Results

- Of the 381 HIV-infected RRT patients from the REIN, there were 238 males, and 143 females.
- There were a total of 317 on HD, 7 on PD, and 57 with functioning renal grafts.
- The median age was 50.0 and median time on RRT was 6.0 years.
- The prevalence of HIV-infection and RRT was:
  1) French Population: 0.068 per 1,000 French population,
  2) French HIV-infected adult population: 2.7 per 1,000 HIV-infected adults in France, and
  3) French RRT population: 2.0 per 1,000 French CKD-Stage-5 patients.
- No differences existed in gender, age, BMI, hepatitis-B co-infection, RRT time, or diabetes, between the three RRT modalities.
- However, findings showed that no transplant patients had hepatitis-C (HCV), compared to 15.8% in the HD, and 14.3% in the PD groups (p<0.01).
- Moreover, no HIV-infected transplant patients had chronic heart disease (CHD) declared in the REIN, compared to HD (21.5%) patients (p<0.0001).
- In terms of racial differences, most dialysis patients were of African descent (59.8%), whereas transplant patients were mainly of European descent (75.0%).

IV. Conclusions

- Findings suggest that HIV-infected transplant patients have less HCV and CHD than their PD & HD counterparts.
- Our results are consistent with the current literature showing an HIV prevalence of nearly 1%, among RRT patients.
- The limitations of this study include the relatively small number of patients in addition to some missing co-morbidity data.

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