

The clinical characteristics of HIV-infected patients receiving dialysis in France between 1997 and 2002

CÉCILE VIGNEAU, JEAN-BAPTISTE GUIARD-SCHMID, JÉRÔME TOURET, ANTOINE FLAHAULT, WILLY ROZENBAUM, GILLES PIALOUX, and ERIC RONDEAU

Department of Nephrology A; Department of Infectious Diseases; and Department of Biostatistiques, Tenon Hospital, Paris, France; and Department of Nephrology, Pitié Salpêtrière Hospital, Paris, France

The clinical characteristics of HIV-infected patients receiving dialysis in France between 1997 and 2002.

Background. In 1997, 0.38% of dialysis patients in France were infected by human immunodeficiency virus (HIV). No prevalence data were available in France since the widespread introduction of highly active antiretroviral therapy.

Methods. This was a cross-sectional epidemiologic survey. A questionnaire was sent to all French dialysis centers in July 2002. The centers that did not respond were sent 3 additional mailing reminders. Finally, the nonresponding centers were called early in 2004.

Results. Of the 27,577 patients on hemodialysis and 587 patients on peritoneal dialysis, 190 patients (0.67%) were infected by HIV. HIV-associated nephropathy was the cause of renal failure in 39.8% patients. Mean age was 44.6 ± 10.9 years, the mean duration of dialysis was 4.9 ± 5.9 years, the mean known duration of HIV infection was 8.9 ± 5.6 years. Eighty-two percent of patients received antiretroviral therapy (ART). Fifty-eight percent of ART-treated patients had an undetectable HIV plasma viral load with a median CD4+ T-cell count $303/\text{mm}^3$.

Conclusion. The prevalence of HIV infection among French dialysis patients was 0.67% in late 2002, a 79% increase since 1997. Possible reasons for this large increase include increased access to dialysis, better general status of HIV dialysis patients, and increasing proportion of patients originating from Africa and the Caribbean. The current efficacy of ART makes renal transplantation a realistic option for these young patients.

Human immunodeficiency virus (HIV) infection can cause end-stage renal disease (ESRD) through both HIV-associated nephropathy (HIVAN) and antimicrobial drug toxicity, or may be a comorbid condition associated in dialysis patients. In the United States, HIV renal diseases represent the third cause of ESRD in African Americans between 24 and 60 years [1].

In the last 10 years, the survival of HIV-infected patients has spectacularly improved [2, 3]. In the United States dialyzed HIV (HID) population, a recent epidemiologic study also showed a marked increase in survival since 1990, with the major improvement occurring since 1997 [4]. This change could potentially reflect the use of the highly active antiretroviral therapy (HAART) [4, 5]. The HID patients represented 1.3% of all dialysis patients in the United States in 1997, and 1.5% in 2000 [6, 7]. The cause of end-stage renal disease in such patients is listed as HIV-associated nephropathy in 70% to 99% of cases according to the studies, but renal biopsies are often lacking [1, 4]. Eighty-three to 89% of these patients are African Americans [1, 4]. Eighty-eight to 94% were on maintenance hemodialysis, and 6% to 12% on peritoneal dialysis [1, 8].

In France, no registry has been available until now for hemodialysis patients, and one has been in progress since 2003 for HIV patients. No epidemiologic data on HID patients have been recorded since 1997 in France. It is likely that, as in the United States, the characteristics of such patients have changed, notably with the advent of HAART [9, 10].

In order to determine the clinical characteristics of HID patients in France since HAART, we conducted a cross-sectional epidemiologic study in all dialysis centers in France at the end of 2002, 5 years after the last such study.

METHODS

From July 2002 to March 2004, a questionnaire was first sent to the physicians of all 795 French dialysis centers (public and private), requesting information on the total number of dialysis patients and the number of HID patients. Nonresponding centers were sent 3 mailing reminders, in September 2002, February 2003, and September 2003, and the few nonresponding centers were called at the beginning of 2004. A separate questionnaire on each HIV-infected patient was sent to obtain:

Key words: dialysis, HIV, France, epidemiology.

Received for publication November 10, 2003
and in revised form June 4, 2004, and August 1, 2004
Accepted for publication October 25, 2004

© 2005 by the International Society of Nephrology

demographic data, renal diagnosis (clinical or by kidney biopsy), durations of dialysis, and HIV infection (date of the first positive HIV serology), mode of HIV transmission, or risk factors, last HIV plasma viral load, and CD4 T-cell count values, dialysis technique, current antiretroviral treatment (ART), and hepatitis C coinfection (HCV).

In all dialysis centers in France, the HIV and HCV status of each patient is determined at the time of the beginning of dialysis and once or twice per year. Opportunistic infections are determined according to the CDC 93 classification. HIV plasma viral load and CD4 T-cell count values were those determined routinely in each center. We did not ask about transplanted HIV patients, who are most often treated in separate transplantation centers.

A descriptive analysis was performed using Excel® software (Microsoft, Redmond, WA, USA).

RESULTS

In April 2004, the response rate to the center questionnaire was 100%. The overall rate of complete responses on HIV patients was 94.7%.

At the end of 2002, there were 190 HIV patients in 86 different centers among 28,164 living patients with ESRD on maintenance dialysis, thus representing a prevalence rate of 0.67%. Three HIV-infected patients were on peritoneal dialysis (0.51% of peritoneal dialysis patients), while 187 patients were on hemodialysis (0.68% of hemodialysis patients). At the end of 1997, there were 82 patients in dialysis. Thus, we can estimate the incidence: 108 patients more in 5 years, so 21.6% incidence rate.

Data were complete for 180 HIV-infected patients, including 50 women (27.8%) and 130 men (72.2%). The mean age was 44.6 ± 10.9 years. One hundred forty patients (60%) were black. Their geographic origin was sub-Saharan Africa in 68 cases (37.8%), metropolitan France or another European country in 44 cases (24.5%), French Caribbean in 40 cases (22.2%), South Mediterranean in 9 cases (5.0%), Japan in 1 (0.6%), Haiti in 7 (3.8%), and not reported in 11 cases (6.1%). One hundred seventeen patients (61.6%) were living in the Paris area, and 20 patients (10.5%) were living in the French Caribbean and Guyana.

The mean duration of dialysis was 4.9 ± 5.9 years (median 3.0 years [0–29]) (Table 1). The main causes of ESRD reported by the nephrologist were HIVAN (39.8%). The other causes were: non HIVAN but HIV related (2.3%), diabetes (8.8%), glomerulonephritis including IgA nephropathy (9.3%), nephroangiosclerosis (7.0%), renal and ureteral malformations (5.8%), interstitial nephropathy (4.7%), and thrombotic microangiopathy (4.1%) (Table 2). Fifty-seven percent of these patients had a biopsy-proven diagnosis.

Table 1. Demographic data on HIV-infected ESRD patients: Changes between 1997 and 2002

	1997 ^a	2002
Number	82	190
Hemodialysis/peritoneal dialysis	79/3	187/3
Men	61	130
Blacks	49	114
Mean age years	41.8	44.6 ± 5.9
Mean dialysis duration years	5.1	4.9 ± 5.9
Mean HIV duration years	8 ± 3.6	8.9 ± 5.6
HIVAN N/%	23/27%	68/39.8%

^aPoignet et al, *Nephrologie* 20:159–163, 1999.

Table 2. Causes of ESRD (N = 171)

	(N/%)
HIVAN	68/39.8%
Non-HIVAN HIV-related	4/2.3%
Glomerulonephritis including IgA nephropathy	16/9.3%
Diabetes	15/8.8%
Nephroangiosclerosis	12/7.0%
Malformation/reflux	10/5.8%
Interstitial nephropathy	8/4.7%
Thrombotic microangiopathy	7/4.1%
Focal and segmental sclerosis	5/2.9%
Cryoglobulinemia	2/1.2%
Membranous glomerulopathy	2/1.2%
Rapidly progressive glomerulonephritis	1/0.6%
Lupus nephropathy	1/0.6%
Chronic graft rejection	1/0.6%
Other and unknown	19/11.1%

HIV infection was documented 8.85 ± 5.62 years before the study (median 8.0 years [0–29 years]). For 18 patients, HIV was discovered after the beginning of dialysis. For the other ones, the HIV infection was documented 5.01 ± 4.69 years before initiation of dialysis (median 4 years [0–17 years]). Sixty-one percent underwent opportunistic infections (35.2%). Sixty-nine patients (36.3%) were probably infected by sexual exposure. Twenty-six (15.0%) patients had a history of intravenous drug use. Nineteen (11.0%) patients were infected by blood transfusion, and 2 (1.2%) by renal graft. One hundred fifteen (63.8%) came from countries with chronic endemia. Scarification was incriminated in 1 case (0.6%). Forty-four patients (25.1%) were coinfecting by HCV.

One hundred forty-two patients (82.5%) were on antiretroviral therapy (ART) at the time of dialysis, with a median of 3 drugs in combination [0–6]. Only 1 patient (0.7%) received a single drug, while 14 (9.8%) were on 2 drugs, 97 (68.4%) on 3 drugs, 26 (18.3%) on 4 drugs, and 4 (2.8%) were on 5 or more drugs (Table 3).

HIV plasma viral load was undetectable (<50 cp/mL in the bDNA Bayer test, or <20 cp/mL in the Roche PCR test) in 83 patients (58.4% HAART among ESRD patients). The median CD4 T-cell count was $336/\text{mm}^3$ [2–1000] (Table 4).

Download English Version:

<https://daneshyari.com/en/article/9310754>

Download Persian Version:

<https://daneshyari.com/article/9310754>

[Daneshyari.com](https://daneshyari.com)