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Analysis of non-eu inmigrant population within hemodialysis program of the region of Madrid

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SUMMARY

Many hemodialysis patients from foreign countries arrived to be dialized in Madrid. They cames from all around the world, especially South America and Morroco. This group is younger (46.2 + 14.2 years) than the control group. Most of them initiated dialysis without a previous Nephrological check-up (62%). In the foreign group the primary renal diseases were similar to the control group, however they also had many other health unusual problems. Most of them (71%) started hemodialysis without ever having permanent hemodialysis vascular access, and 25 % were not able to speak spanish, or other European languages. This caused many problems in administring correct treatment.

Key words: ***Hemodialysis, foreing patients.***

ANÁLISIS DE LA POBLACIÓN EXTRACOMUNITARIA EN PROGRAMA DE HEMODIÁLISIS (HD) EN LA COMUNIDAD DE MADRID

RESUMEN

Los pacientes en hemodiálisis procedentes de un país de origen extracomunitario acuden a dializarse a la CAM desde casi todas las partes del mundo, especialmente Sudamérica y Marruecos. Tienen una edad media (46,2 ± 14,2 años) inferior al resto de los pacientes en diálisis, ingresan en su mayoría desde urgencias (62%), sin que sea conocido por el servicio de nefrología hasta ese momento. Tienen una causa de insuficiencia renal con una distribución similar al resto de la población, aunque con un mayor número de etiología desconocida, pero, sin embargo, presentan enfermedades poco habituales o exóticas que nos irán siendo más familiares con el tiempo. La mayoría comienzan hemodiálisis sin acceso vascular permanente (71%) y es destacable que la cuarta parte de ellos tienen dificultades de comunicación, por no hablar el castellano ni otro idioma occidental, complicando su correcto tratamiento.

Palabras clave: ***Hemodiálisis, población extracomunitaria.***

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INTRODUCTION

In recent years, the Spanish population is receiving an important migratory flow. This situation has particularly affected health institutions that not only have to deal with a higher number of patients but also these patients have clinical and social peculiarities that make them different to the remaining population usually treated. Many of them are in an illegal situation, do not speak our language and, what is more important, have pathologies unusual to date in our country.

Nephrology is not unaware of this problem and among nephrologists information exchange on how to manage these cases is common. There are more and more patients of extra-European Union (EU) Community countries that are being followed in nephrology departments and that are treated at dialysis units. This situation gives rise to problems common to other health institutions together with several more specific ones, derived from hemodialysis treatment.

Some patients present already diagnosed from their countries of origin, directly to begin dialysis. The national health system of origin countries does not cover chronic dialysis treatment or renal transplantation[1-2]. This produces a constant flow of young patients without any hope in their countries and that come to ours looking for their last chance to be treated.

The goals of the study include the analysis of the characteristics of this group of patients in the Madrid region, the circumstances that affect dialysis treatment and the pathologies associated to renal failure, infrequent in our setting.

MATERIALS AND METHOD

The analysis of the study population characteristics was performed by means of a formulary sent to all hemodialysis units in the Madrid region. The formulary was completed by all 31 existing centers during November of 2003. Patients coming from EU countries or in peritoneal dialysis are not included.

The formulary included demographic data (age, gender and country of origin), chronic renal failure etiology and concomitant diseases, way of incorporating to the dialysis program, time elapsed since first contact with the nephrology department until onset of hemodialysis, as well as the situation in which patients began treatment, with particular attention to vascular access.

Information is also gathered about whether these patients come to Spain with the goal of having dialysis because they cannot receive it in their countries of origin, about their working status and about the degree of knowledge of Spanish.

In order to evaluate the study group characteristics in relation to the general immigrant population of the same countries, we used data from the National Institute of Statistics, updated until January 1st 2003[3], and for comparison with the Spanish general population in dialysis we considered the latest data from the Dialysis and Transplantation Registry of the Spanish Society of Nephrology (SEN) of 2002[4].

Table I. Studied patients distribution according to their country of origin

Countries	Patients	Countries	Patients
Morocco	17	Haiti	1
Cameroon	1	Argentine	1
Egypt	2	Uruguay	1
Cape Verde	2	Colombia	3
Angola	2	The Philippines	3
Guinea	6	Afghanistan	1
Nigeria	3	China	2
Cameroon	1	India	1
Mauritania	1	Vietnam	1
Peru	9	Palestine	1
Ecuador	14	Japan	1
Bolivia	2	Romania	6
Dominican Republic	6	Bulgaria	1
Cuba	2	Ukranie	3
Chile	2	Moldavia	1
Venezuela	2	Poland	1

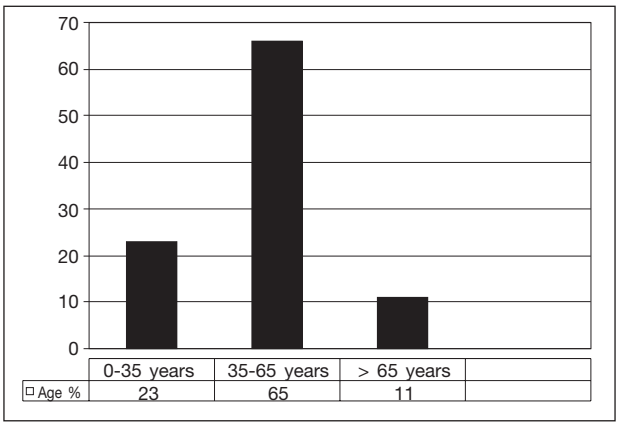


Fig. 1.—Distribution by age groups (%).

RESULTS

By the time of the survey, 2035 patients were on dialysis in Madrid region. Of them, 100 (4.91%) had nationality of one of 33 extra-EU countries. By continents, the most abundant population is from America, Latin American as a whole, with 44 patients (44%), followed by 35 Africans (35%), in the third place 12 people coming from non-EU European countries, and Asians (9%). By countries, the most frequent are Morocco with 17 people and Ecuador with 14. The 36 countries of origin of these patients are shown in table I.

Mean age of the studied group population is 46 ± 14.2 years (17-75 y.), significantly lower than prevalent age of dialyzed patients in Spain (63.8 ± 14.2 y., $p < 0.000$)[5]. Age distribution is shown in Figure 1. Mean ages according to continent of origin are: Africa 50.37 ± 15.5, America 43.8 ± 11.3, Asia 51.3 ± 18.4 and Europe 43.2 ± 17.7 years (p n.s.). In 36 patients (36%) the cause of chronic renal failure leading to hemodialysis program was unknown, vascular in 11 cases (11%), interstitial in 7 (7%), glomerulonephritis in 18 (18%), diabetes mellitus in 16 (16%), erythematous lupus in 6 (6%), adult polycystic disease in 6 (6%); this distribution shows some differences in comparison with the Spanish population on dialysis, although it is not significant (fig. 2).

Forty-four patients (44%) came from their countries of origin diagnosed with chronic renal failure in stage V, directly to be dialyzed. Sixty-two patients were admitted to the hospital through the emergency room and were directly incorporated to the hemodialysis program for chronic patients, 6 were known cases for less than 3 months, 9 patients between 3 months and 1 year, 21 patients were already known at the nephrology department for at least one year prior their entrance into the dialysis program, and in 2 cases their incorporation to hemodialysis was after being rejected for renal transplantation.

The place of diagnosis of renal insufficiency was their own country in 44 patients (44%), at the emergency room in 37 cases (37%), at primary care in 11 cases (11%) and by other specialists in 17 cases (17%). At the moment of the survey, 91 patients were receiving treatment with erythropoiesis stimulating factors to manage their anemia, and 23 had a remunerated job in Madrid region.

Sixty-three patients spoke Spanish and of them, 44 came from Spanish speaking countries and 29 from other countries, most of which African, which means that 27% of the whole population had communication problems with the health care staff.

Twenty-nine percent of the patients had a prior arterial-venous fistula, in 23 cases done at the nephrology department and 6 came with it from their countries of origin.

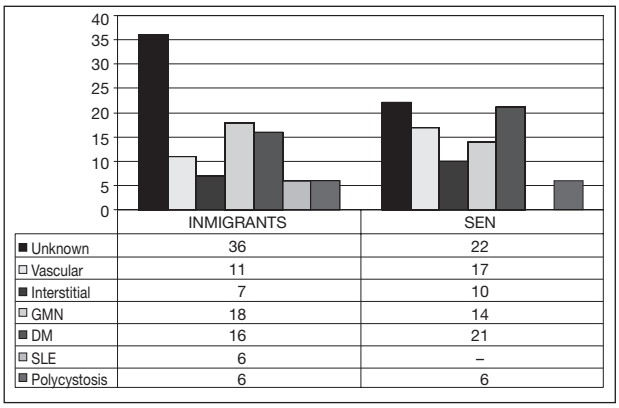
While looking for infrequent diseases in our setting, we found 8 infectious diseases, 3 autoimmune diseases and 2 congenital diseases cases. These additional diseases are summarized in table II.

DISCUSSION

Data from the National Institute of Statistics (INE) of January 1st 2003[3] show that in the Madrid region were registered in the census 589,400 immigrants, of which 46,858 were EU members. Taking into account that Madrid population comprises 5.5 million people, 10.3% are immigrants and it is the first autonomous community in immigrant numbers, before Catalonia that ranks second. Nationwide, registered population was 42,717,064 inhabitants with 6.26% foreigners out of the whole population (2,672,596 inhabitants).

Tabla II. Additional infrequent diseases in studied patients

Pathologies	Number
TB	2
HIV	1
Vaginal condiloma	1
Malaria	3
Filaria + schistosoma	1
Adult celiac disease	1
Antiphospholipid syndrome	1
Hypogonadism-dwarfism	1
EPO resistance	1
6GPDH deficiency	1



	INMIGRANTS	SEN
Unknown	36	22
Vascular	11	17
Interstitial	7	10
GMN	18	14
DM	16	21
SLE	6	–
Polycystosis	6	6

Fig. 2.—Renal failure etiology (%) in the studied population as compared with the SEB Dialysis and Transplantation Registry data of 2002.

22.05% of the whole immigrant population registered in the nationwide census resides in Madrid.

According to the last SEN Dialysis and Transplantation Registry[4], prevalent population of hemodialysis patients per million inhabitants is 454 pmp, and according to general population on hemodialysis data, gathered at the Madrid region survey, prevalence is 370 pmp. These data represent the limitation that implies the lack of a registry in this autonomous region. On the contrary, in the studied group, prevalence is 184 pmp should we consider the whole immigrant registered population, without considering those from the EU, which is a small group, or those that reside illegally in Madrid. Since we do not know the age pyramid of the immigrant population, it is difficult to decide what are the causes of this lower prevalence. This difference may be the consequence of a mean age for the studied population of 46 years, much younger than the age of prevalent patients in Spain, which is greater than 60 years[3], or it may be due to a more limited access to dialysis for the elderly immigrant population. Unknown reliable data on the immigrant population in Madrid limits the real knowledge of the former data.

It was decided to exclude EU countries as they all have a national public health system that allows patients to have dialysis in their countries and because of the real possibility of carrying on their treatment in any of the EU countries without any problem. Free circulation of people makes that information regarding patients from EU countries lacks the same interest, considering the factors we intended to analyze.

In this study we have not considered patients on peritoneal dialysis estimating it is a very reduced sample. The reason for that is the little time available for placing the peritoneal catheter when these patients reach the program together with the scant success possibilities and hygiene conditions that the dwellings where they live usually offer.

According to INE data, 79,905 Africans legally reside in Madrid, of whom 35 receive hemodialysis (HD) (438 pmp), 325,897 Latin Americans, 44 on HD (135 pmp), and 30,215 Asians, 9 on HD (297.8 pmp). Immigrants from African countries, especially Morocco, are the group with the highest dialysis incidence of all studied people. A contribution for this may be the proximity with this country and the readily easiness to travel.

When comparing the etiologies of renal failure of studied patients with the SEN Dialysis and Transplantation Registry data for the year 2002[4], it is observed that among immigrant population glomerular and unknown origin nephropathies are more common, whereas in the general Spanish population vascular diseases and diabetes mellitus are more prevalent, a fact that can also be explained by the younger age of the studied population.

A series of studies demonstrates a better survival of patients early referred to nephrology departments[6,7,8]. Sixty-eight percent of studied patients were incorporated to hemodialysis programs from the ER, initiating treatment immediately. On the contrary to what occurs with patients diagnosed with renal failure in the general population, the problem does not lie in that other specialists refer them late, but in that, because of the peculiarity of this group, essentially their illegal situation, they come in very extreme conditions. Only 32%, followed for more than 3 months at the nephrology department, follow the usual tracks as for the general population. As long as their social conditions and access to the hospitals will not improve, it seems very unlikely that access to hemodialysis units will improve.

In a recent multicenter Spanish study[9] on the characteristics of 362 patients in 5 hospitals at the onset of their hemodialysis and their prognostic significance, it was observed that 54.1% started treatment in a programmed way, defined as those that presented a permanent vascular access. The non-programmed group was associated with older age (69.7 ± 13.8 years), greater diabetes incidence (34.7%), greater co-morbidities, greater need for transfusions and lower hemoglobin level. Independent risk factors were the lack of nephrologic follow-up, uremic symptoms, greater hospitalization rate, greater morbidity and 5 fold greater costs than the programmed group. This increase in resources consumption has been determined in several studies[10], thus being possible that treatment in this group of patients represents a considerable additional expense.

Non-programmed incorporation to hemodialysis programs and late referral to nephrologists are two risk factors for a greater co-morbidity, hospitalization, and mortality[6-11]. However, the studied group is significantly younger than the incident Spanish population, thus being possible that intermediate- and long-term morbidity and mortality won't be affected.

There is a complete difference in the way patients are followed-up before starting on hemodialysis. In the Spanish multicenter study[9], 67.1% of patients that started in a non-programmed way were followed by a nephrologist, the remaining being followed by other health care professionals. In the studied group, 62% come into the hospital, to the emergency room, with a uremic state, having to be dialyzed immediately, and only 30% can be followed by a nephrologist in a programmed way. Forty-four percent come to get dialysis directly from their countries of origin. The remaining 18%, although they live in our country long time ago, do not seek medical attention until their situation is so sick that they decide to come to the emergency room. This situation is due to their legal precariousness, thus, this group being the one on which we must put an effort so that they can be early assisted.

The working status of Spanish patients incorporated in a non-programmed way in the Spanish multicenter study includes 84.7% of retirees[9]. In the studied group, 77% do not work, although their situation cannot be defined as retirees, because of their age.

Vascular access is one of the issues that nowadays the working groups that analyze advanced chronic renal disease are trying to take care of in a special way, and it represents a greater morbidity risk factor[12]. In a recent study on patients on hemodialysis, 45% started with a provisional vascular access[13]. Authors establish a relationship between onset of dialysis with a provisional vascular access and a greater rate of permanent access failures. These data suggest that the studied group, which incorporates to HD with a lower rate of permanent vascular accesses, may present a greater number of vascular complications of the vascular access. However, a prospective assessment is needed. In the present study, 71% of the patients started on dialysis with a transient access. This fact constitutes one of the more common associated problems the nephrologist must deal with when an immigrant patient comes in.

Use of erythropoiesis stimulating agents in 91% of the studied group is similar to the prevalent hemodialysis population, according to the data reported by the DOPPS study[14], in which it represents 91 _ 1.2% of the patients, which means an equivalent management of the anemia they present.

In summary, immigrant patients are a reality in our hemodialysis units and, very likely, they will grow in numbers. It is important to be aware of the situation but, for the time being, it will be very difficult to arbitrate the mechanisms for their incorporation be similar to the Spanish population, since there exist social connotations that require political solutions, far away from the nephrologist reach.

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