HAVE ANY CHANGES HAPPENED IN THE LAST 25 YEARS IN THE PROFILE OF PATIENTS WITH AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE WHO STARTED RENAL REPLACEMENT TREATMENT IN CATALONIA?

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INTRODUCTION AND AIMS: Autosomal dominant polycystic kidney disease (ADPKD) is the most frequent inherited kidney disease, caused by mutations in two genes: *PKD1* and *PKD2*. The growth of kidney cysts causes progressive deterioration of renal function, being the cause of 8% of patients on renal replacement therapy (RRT). Although classically the age at initiation of RRT is 53 TRS (*PKD1*) and 69 years(*PKD2*), recent articles have observed a delay, probably due to a better control of the factors of disease progression.

The objective of this study was to analyze the epidemiological changes of patients with ADPKD who started RRT in Catalonia (a Spanish region with over 7 million inhabitants) in the last 25 years.

METHODS: The data came from Catalan Renal Patients Registry for all patients who started RRT. The follow-up time was divided into 3 periods: 1984-1991, 1992-1999, 2000-2009. 2 groups were defined: ADPKD (family history and ultrasound criteria compatible) and non-ADPKD (other nephropathies). The variables analyzed were: age and gender (male to female ratio) at initiation of RRT, strategy of RRT, hypertension , diabetes mellitus, ischaemic heart disease, cerebrovascular disease, cancer, % treated with erythropoietin in dialysis, CRP levels, survival rates 3rd year of RRT and the renal graft and age of death. Comparison of the groups was performed with Chi-square test and Student s t-test.

RESULTS

Table 1. Clinical features of ADPKD and non-ADPKD patients on RRT

	ADPKD	Non-ADPKD	p
Number of patients: 20,033	1,586 (7.9%)	18,447 (92.1%)	<0.001
Males % *vs* Females %	52.8% *vs* 47.2%	63.1% *vs* 36.9%	<0.001
RRT strategy at 31.12.09: HD *vs* PD *vs* Tranplantation	31.8% *vs* 2.8% *vs* 65.4%	46.9% *vs* 3.8% *vs* 49.3%	<0.001
Hypertension	86.2%	84.2%	0.158
Diabetes mellitus	6.0%	12.5%	<0.001
Ischaemic cardiopathy	9.4%	21.7%	<0.001
Cerebrovascular	8.2%	13.7%	<0.001
Cancer	4.9%	11.4%	<0.001
Treated with erytropoietin	77.9%	91.9%	<0.001
CRP (<10 mg/l)	71.7%	66.9%	0.124
Survival rates 3rd year of RRT	88%	66%	<0.001
Survival rates 3rd year of the renal graft	86.2%	80.1%	<0.001
Age of death (years ± SD)	69.0 ± 10.4	69.4 ± 12.6	0.410

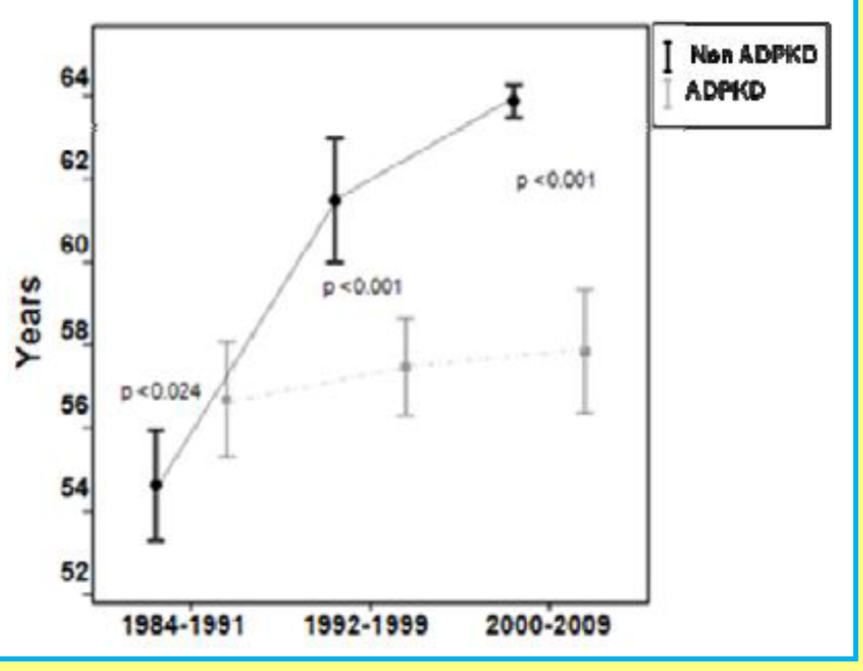

Figure 1. No changes in the mean age in ADPKD over 3 periods (56.7 10.9, 57.5 12.1, 57.8 13.3; p:0.37), but increased significantly in non-ADPKD (54.8 16.8, 61.7 16.2, 63.9 16.3; p<0.001)

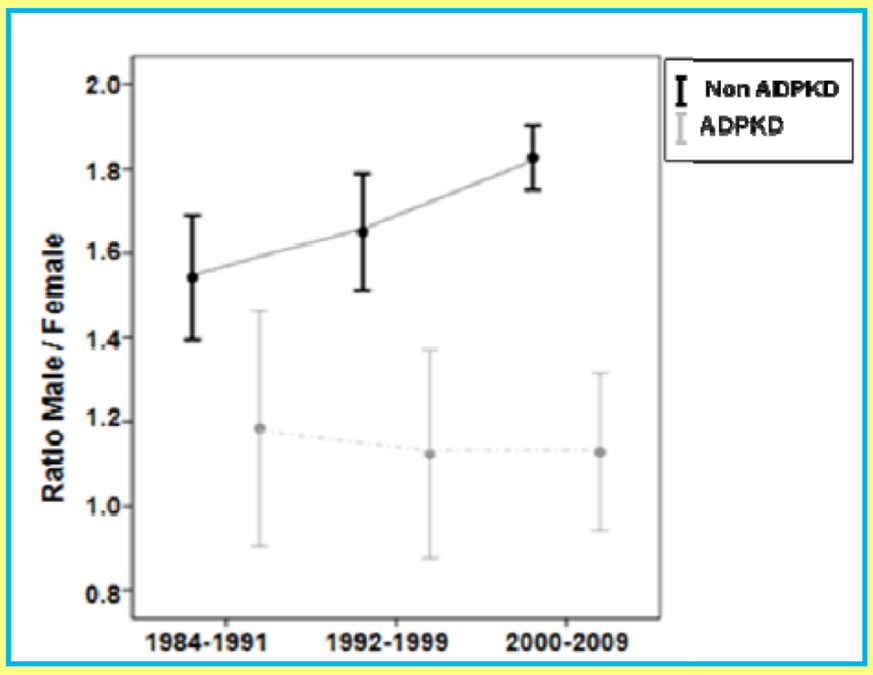

Figure 2. No differences in the gender ratio in ADPKD:1.1-1.2, but the number of men was higher in non-ADPKD: 1.6-1.8

CONCLUSIONS: In ADPKD patients, the age at the initiation of RRT and the gender ratio (male to female) has not varied over the last 25 years, probably due to the importance of unmodificable genetic factors in the absence of specific treatment. In contrast, in non-ADPKD patients the age has have been delayed in relation to therapeutic advances in the control of cardiovascular risk factors, in a population with a higher prevalence of associated diseases

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