

Belgian and immigrant renal patients starting dialysis: is it the same population?

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Introduction

The ZNA renal clinic offers renal care in a large industrialized city with a high percentage of immigrants. These foreigners therefore represent a high percentage of the patient population.

Methods

Over the last 6 years we analyzed the characteristics of Belgian patients starting dialysis compared to immigrant patients to investigate whether both populations differ. All patients were provided with renal care in a multidisciplinary pre-dialysis clinic, or standard setting. Some patients were late referrals. Clinical parameters were registered at start and after one year of dialysis.

Results

222 patients started dialysis, 181 of Belgian origin and 41 immigrants. These immigrants starting dialysis, were significantly younger than the Belgian patients. A remarkable high percentage of foreigners were illiterate. In general their education level was significantly lower than the indigenous population ($p < 0.001$) and in 55% of our immigrant patients translation was needed to communicate with the healthcare professionals (Table 1).

In 48.6% of the immigrant patients a renal biopsy was performed at presentation, whereas in only 17.8% of the Belgian patients this diagnostic procedure was used. The renal diagnoses of the immigrant population was significantly different from the Belgian population with more glomerulonephritis and more "other" systemic diseases (Table 2).

The Belgian renal patients had a significantly more frequent follow up in the multidisciplinary pre-dialysis clinic. The immigrant renal patients presented more frequently as late referral. More often dialysis was started urgently in these immigrant patients. In spite of these indications of less ideal care in the immigrant population, significantly more of the foreign patients were transplanted in the first year after dialysis (Table 3).

Dialysis modality at start and after one year of dialysis did not differ significantly between both groups (Figure 1). After one year of dialysis, the use of AV fistula showed a more pronounced increase in the immigrants compared to the Belgians (Figure 2). While the physical component of the SF-36 revealed a better physical quality of life in immigrants, a remarkable difference in the mental score was observed after one year of dialysis (Figure 3).

Table 1: Demographic characteristics

	Belgians n=181	Immigrants n=41	p-value of difference
Age (mean, range)	70.4 (27-93)	51.7 (28-74)	<0.001
Gender (% male)	58.6%	75.6%	0.043
Living conditions			
at home, in family	67.1%	78.9%	
at home, alone	23.4%	18.4%	
service apartment	3.6%	0.0%	
nursing home	6.0%	0.0%	
other	0.0%	2.6%	0.072
Caregivers			
no care needed	38.1%	50.0%	
care from partner	29.8%	23.7%	
care from children	8.4%	21.0%	
professional care	23.8%	5.3%	<0.001
Professionally active	11.9%	23.7%	0.059
Education			
no	1.9%	19.4%	
primary	20.4%	19.4%	
lower secondary	40.8%	19.4%	
higher secondary	26.8%	22.6%	
higher	10.2%	19.4%	<0.001
Illiteracy			
fluently reading and writing	94.0%	75.0%	
basic reading and writing	4.8%	5.6%	
illiterate	1.2%	19.4%	<0.001

Table 2: Clinical characteristics at baseline

	Belgians n=181	Immigrants n=41	p-value of difference
Smoking	59.1%	29.0%	0.002
Abuse of alcohol	15.6%	10.8%	0.752
Abuse of drugs	4.8%	13.2%	0.150
Renal diagnosis			
glomerulonephritis	9.2%	29.3%	
tubulo interstitial nephritis	9.2%	7.3%	
diabetic nephropathy	22.4%	29.3%	
other systemic disease	28.2%	22.0%	
hereditary disease	7.5%	4.9%	
miscellaneous	23.6%	7.3%	0.006
Diabetes type 1	1.8%	2.6%	0.763
Diabetes type 2	35.9%	41.0%	0.552
Coronary disease	40.6%	16.7%	0.007
Hypertension	79.4%	80.6%	0.875
Renal biopsy	17.8%	48.6%	<0.001

Table 3: Follow-up

	Belgians n=181	Immigrants n=41	p-value of difference
Follow-up pre-dialysis			
months of follow-up (mean-SD)	19.5 (25.4)	13.1 (17.3)	0.197
follow-up in pre-dialysis clinic	35.9%	17.1%	0.015
late referral (<=3 months)	35.4%	58.5%	0.015
Start dialysis			
start dialysis urgently	47.3%	62.5%	0.085
PD at start dialysis	20.5%	10.3%	0.139
hospitalisation at start (mean days-SD)	25.3 (62.0)	12.7 (13.7)	0.281
hospitalisation during year1 (mean days-SD)	34.2 (51.7)	38.8 (85.9)	0.727
1-year outcome			
transplantation: n (%)	4 (2.2%)	7 (17.1%)	<0.001
mortality	41.9%	17.1%	0.003

Conclusion

We conclude that the renal immigrant dialysis patients differed from the Belgian patients, albeit that a large part of the differences could be explained by the difference in age between both groups.

Figure 1: Dialysis modality at start dialysis and after one year

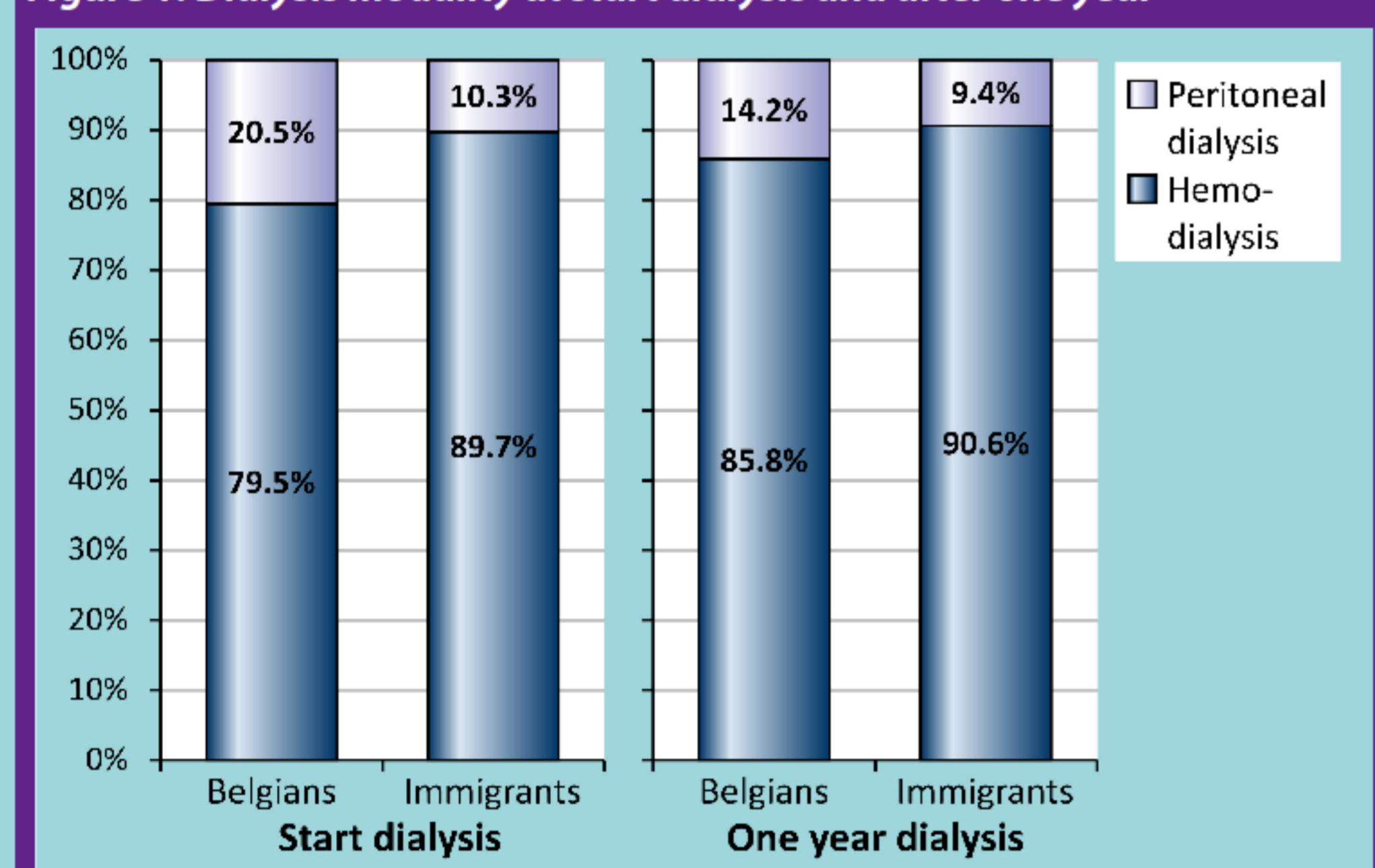


Figure 2: HD Vascular access at start dialysis and after one year

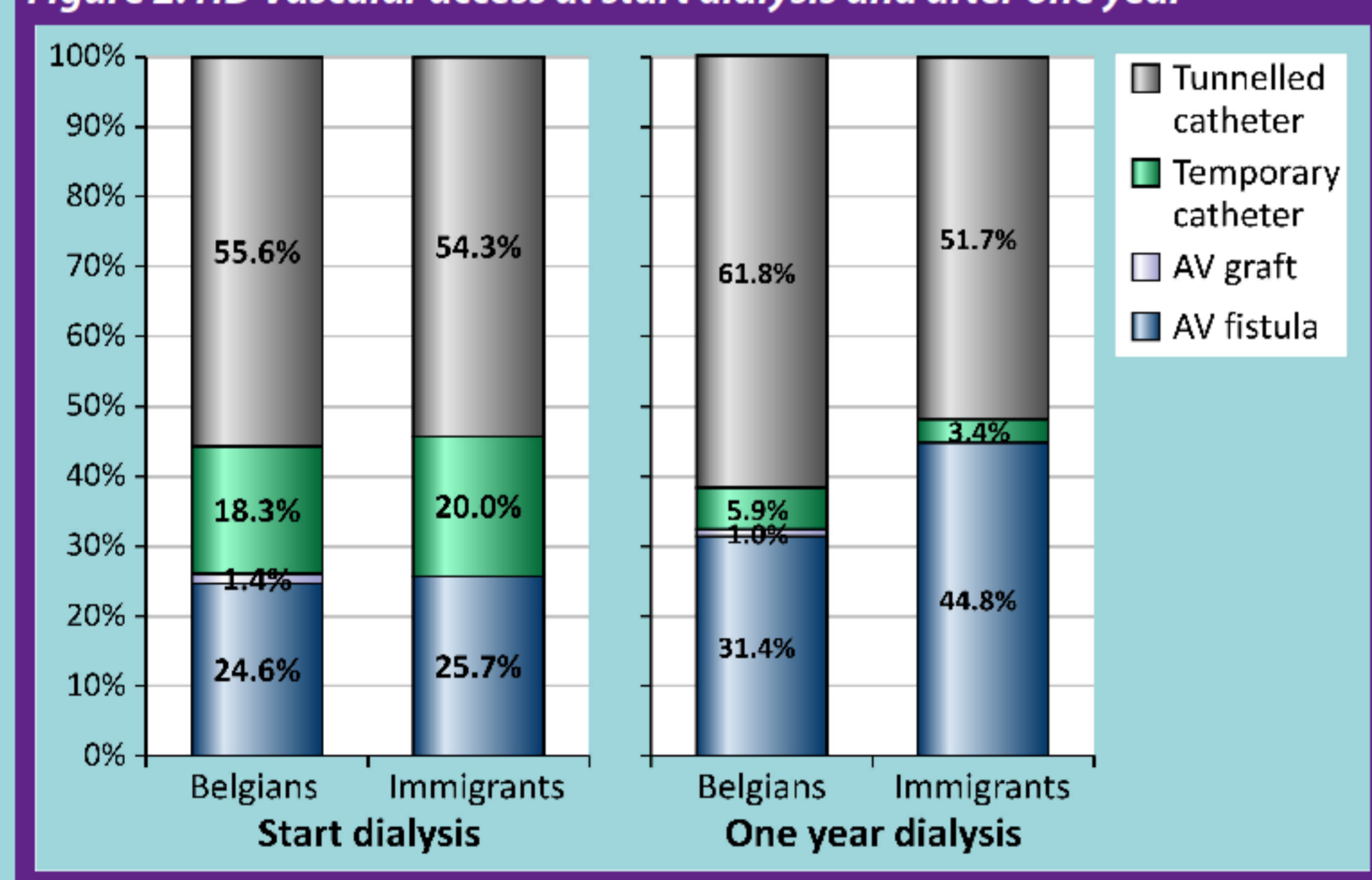
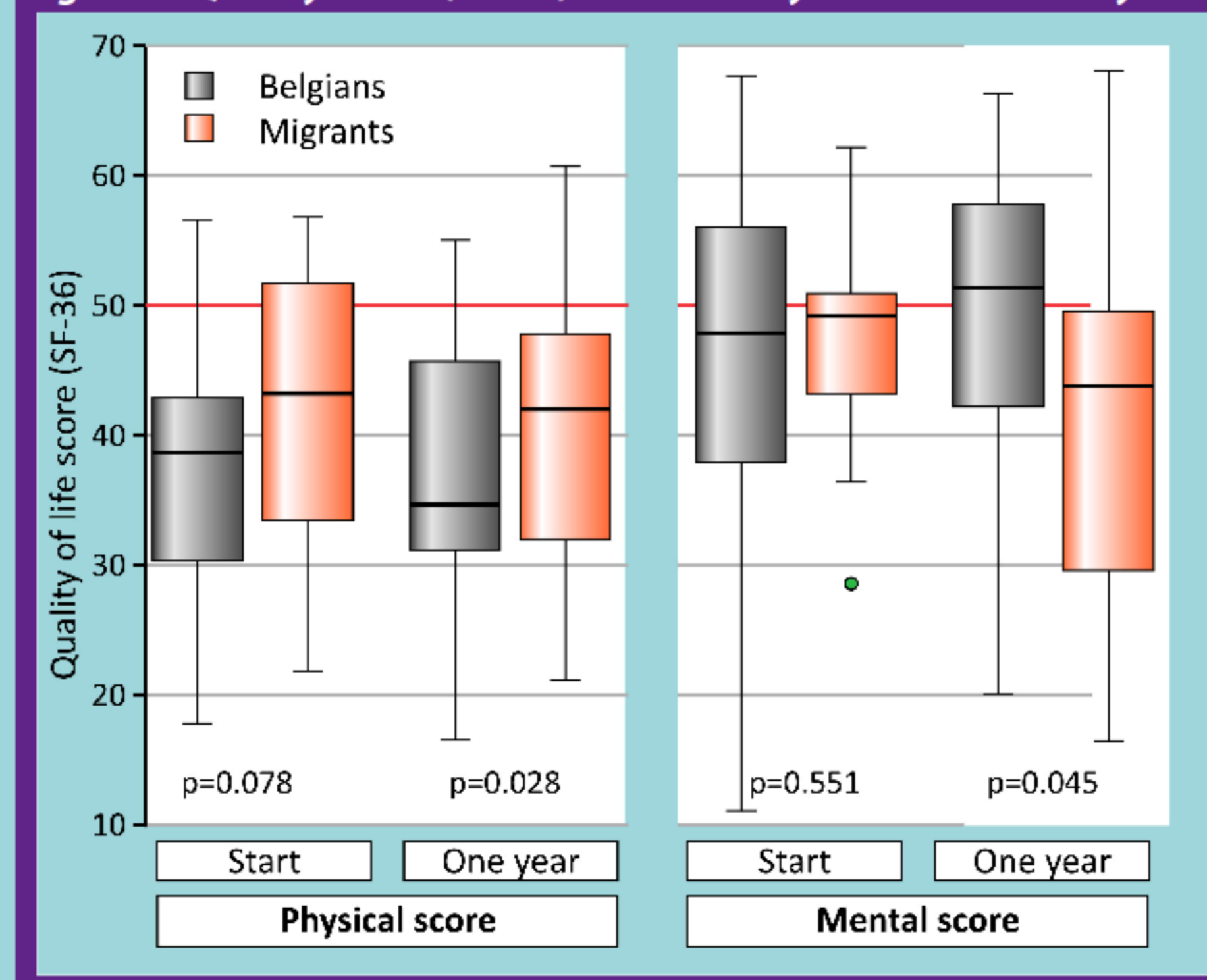


Figure 3: Quality of life (SF-36) at start dialysis and after one year



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