

# Pitavastatin vs Atorvastatin in kidney transplant patients

## Authors

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## Introduction

Cardiovascular disease continues to be the leading cause of mortality following kidney transplantation, and dyslipidemia is an important risk factor for morbidity and mortality. Statins are considered the treatment of choice of dyslipidemia after renal transplantation, however, the use of Pitavastatin has not been adequately described in this population.

## Objective

The aim of the study was to know the lipid-lowering effect and Pitavastatin's safety profile compared on a group of patients treated with Atorvastatin.

## Patients & Methods

**Patients with renal transplantation** (N= 48, average age 56 ± 10 years)

**Immunosuppression:** Prednisone + Tacrolimus + MMF.

**Treatments groups:**

- Group #1: Pitavastatin: (14 patients).
- Group #2: Atorvastatin (34 patients).

**Median follow-up:** 13.8 ± 13 months.

**Demographics data:** Age, gender, base disease, HTA, MD.

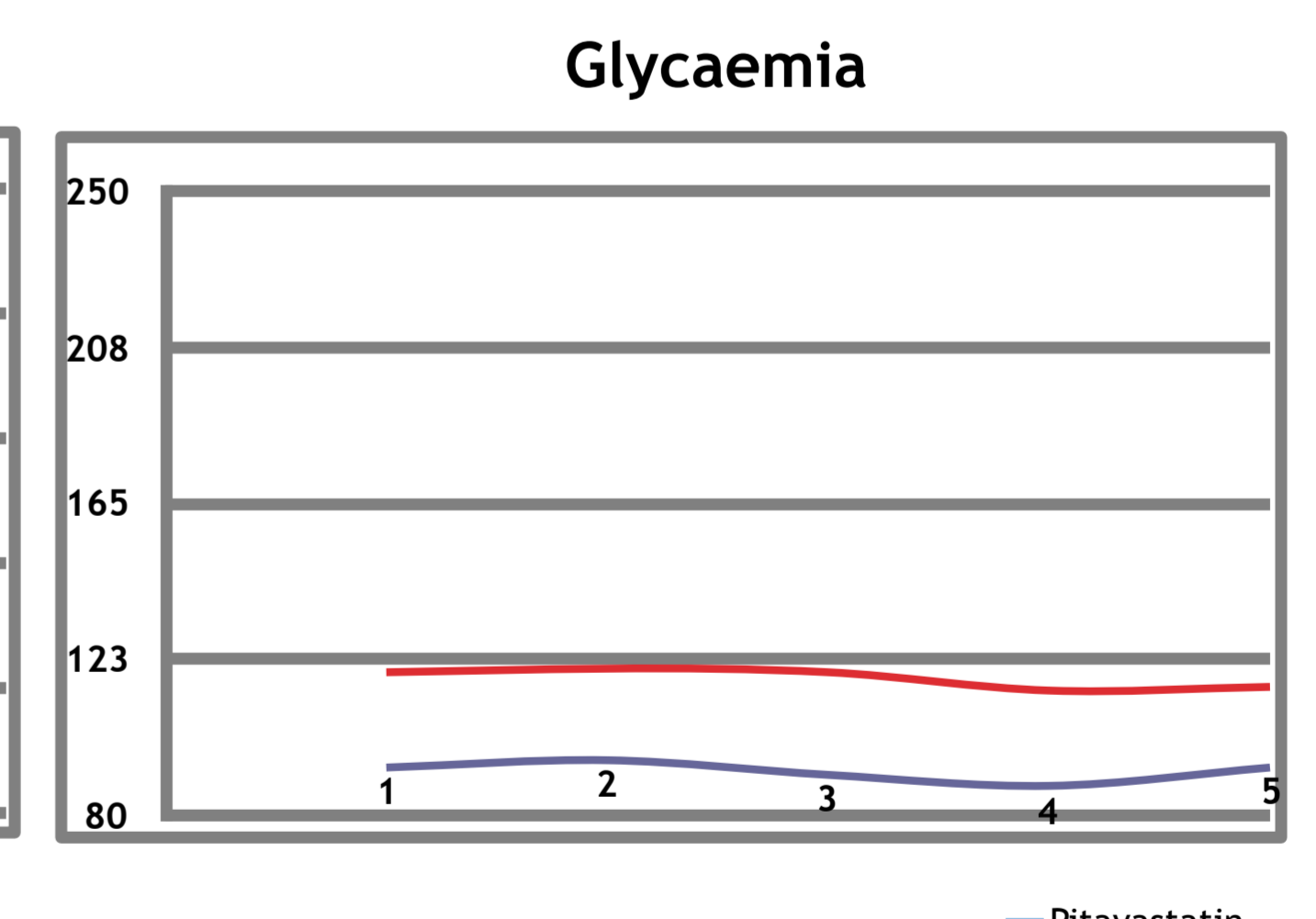
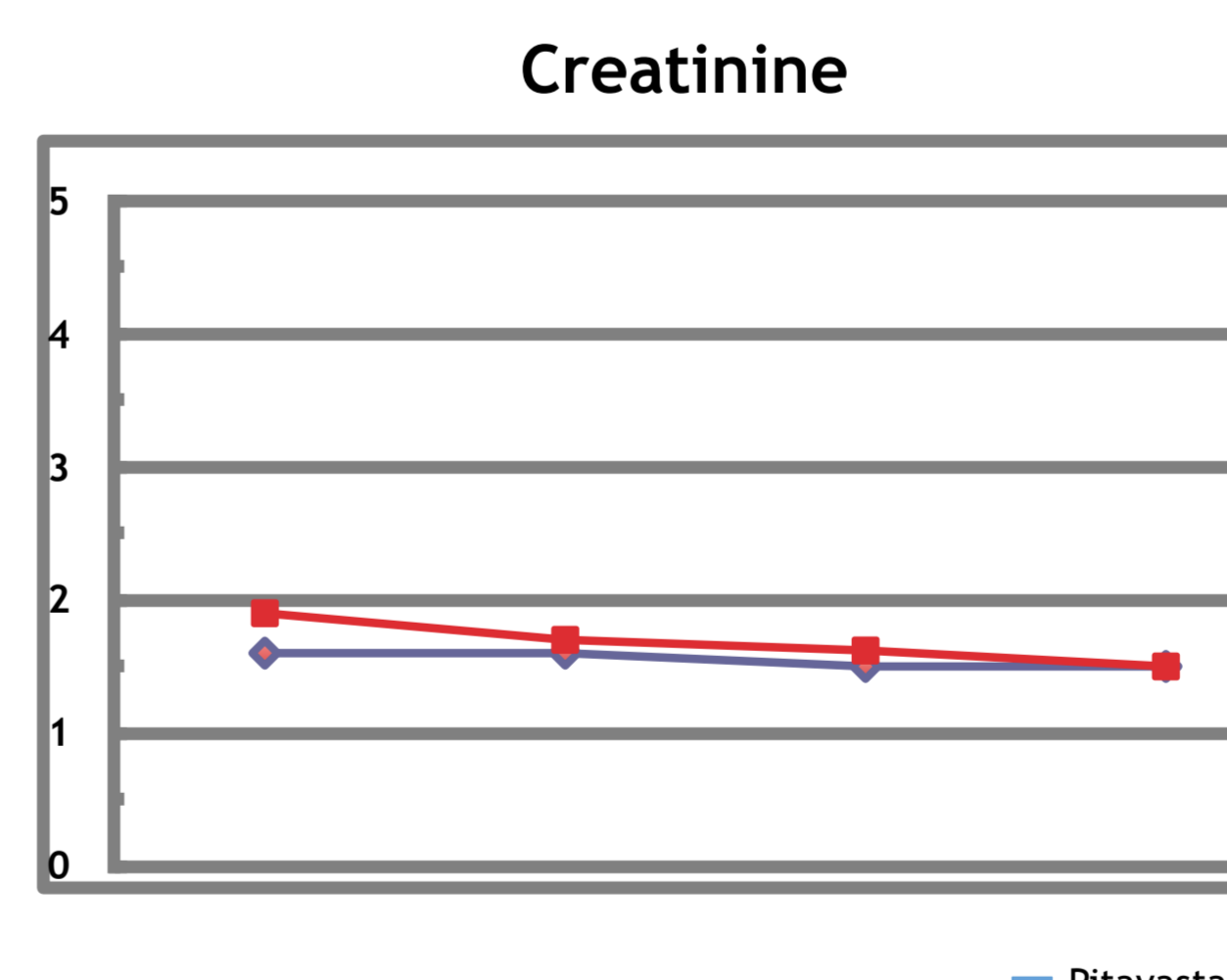
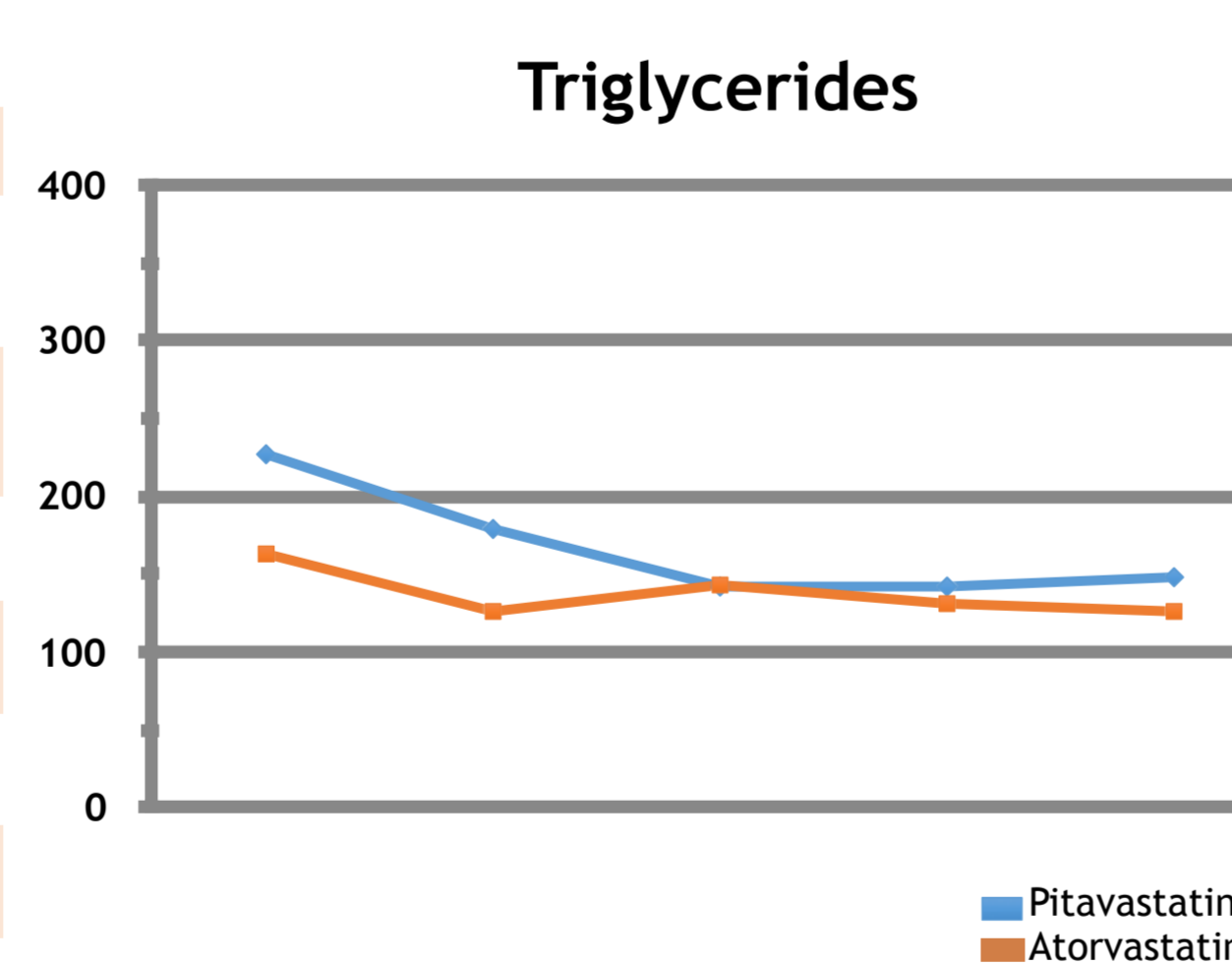
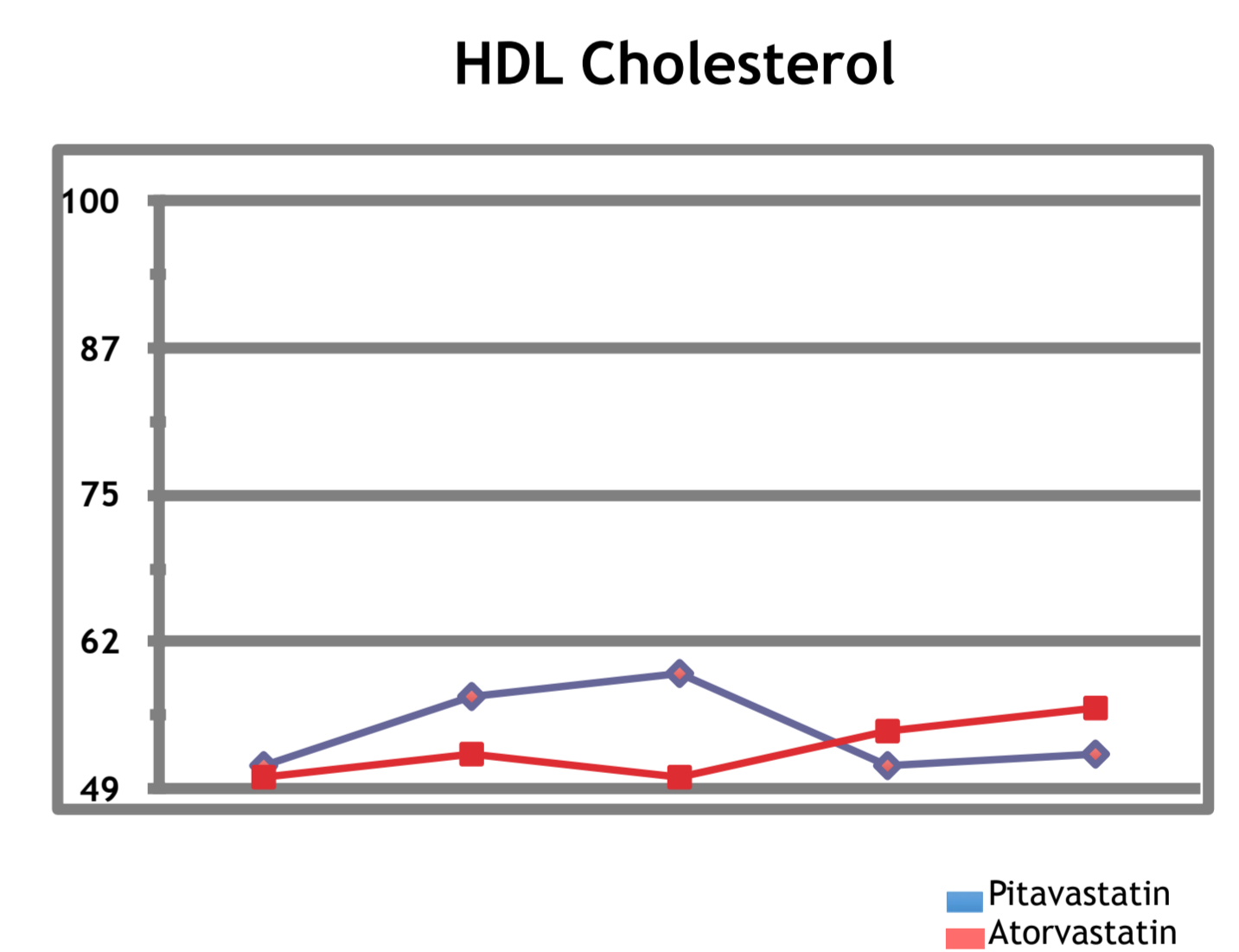
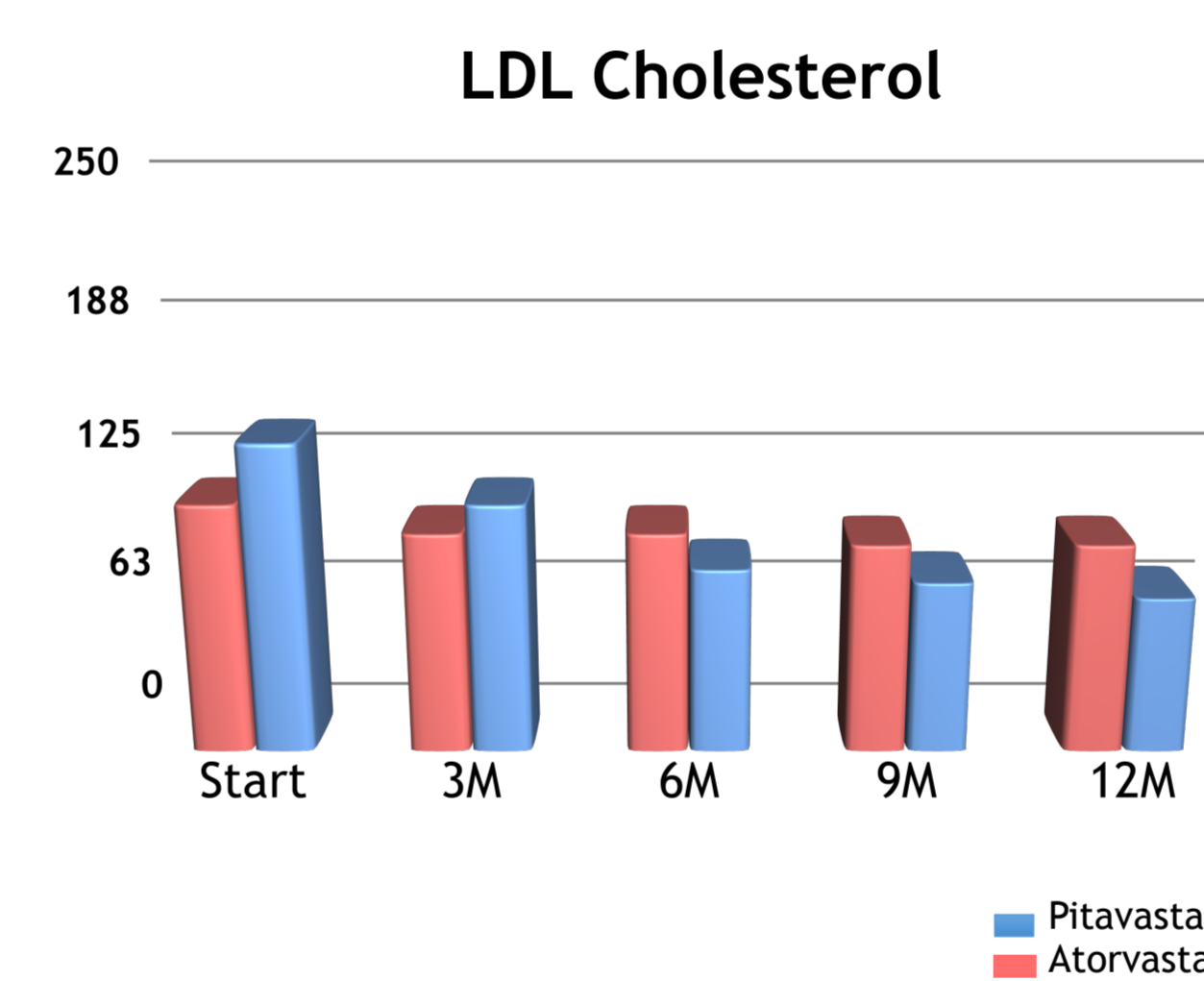
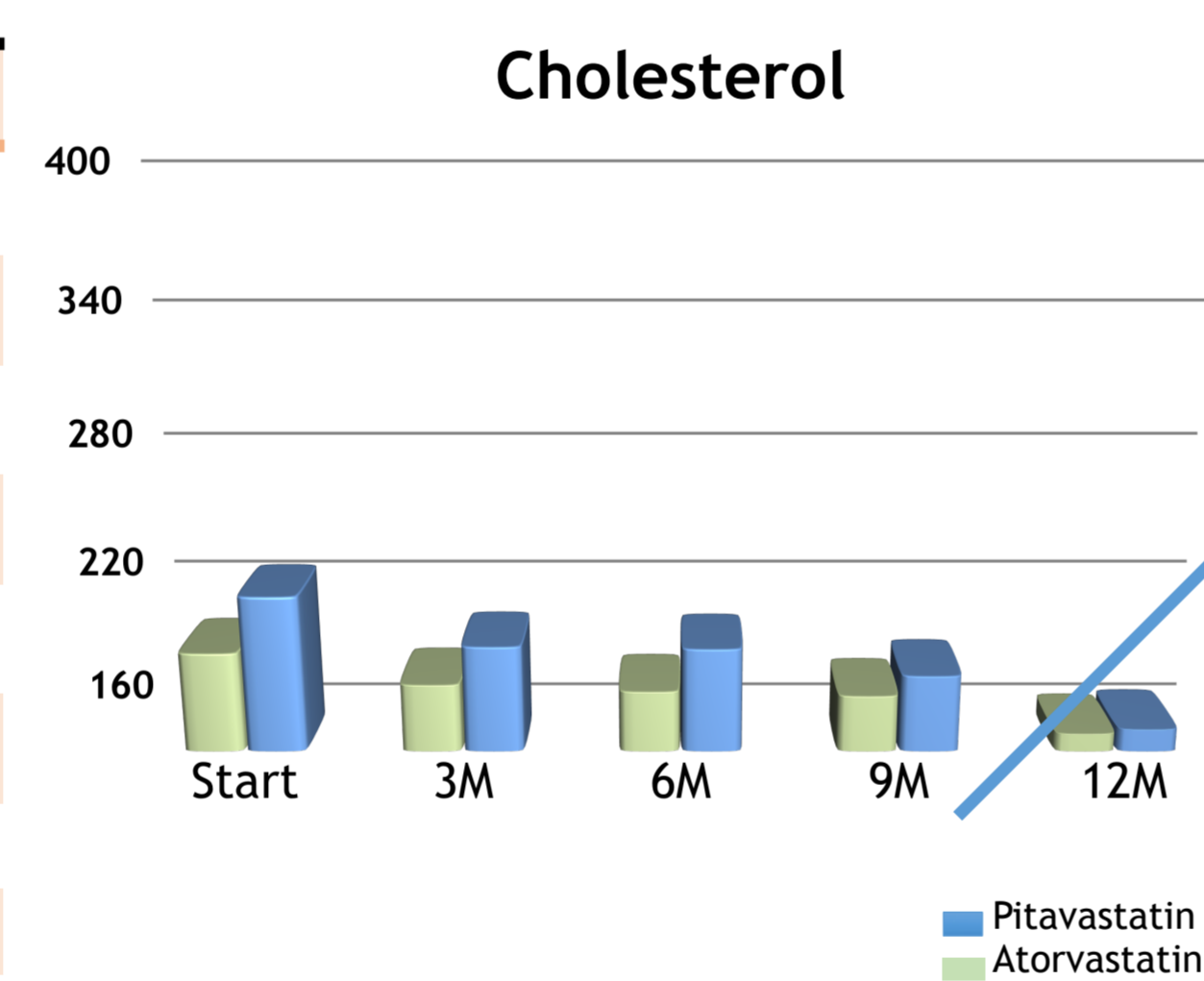
**Lipid profile at the beginning and quarterly** (Total cholesterol, HDL, LDL, triglycerides).

**Glycaemic profile** (Basal glycaemia and Hb1AC).

**Kidney function** (Estimated creatinine at baseline and quarterly).

Basal Characteristics			
	Pitavastatin	Atorvastatin	p
Age (average ± SD)	54 ± 11 years	56.6 ± 10	NS
Gender (% varones)	71%	73%	NS
HTA	93%	91%	NS
Diabetes Mellitus	15%	32%	0.020
Time on dialysis	20 ± 12 months	20 ± 14 months	NS
Base disease			NS
- Diabetes	8.3%	30%	
- HTA	8.3%	18.2%	
- CGN (Chronic glomerulonephritis)	25%	18.2%	
- No filiation	25%	21.2%	
- PKD (Polycystic kidney disease)	33%	12%	
<b>Total Cholesterol (mg/dl)</b>	<b>229 ± 37</b>	<b>204 ± 39</b>	<b>0.057</b>
HDL	51.9 ± 12	50.7 ± 19	NS
LDL	140.5 ± 40	113 ± 32	0.026
Triglycerides	227 ± 100	163 ± 80	NS
Creatinine	1.6 ± 0.7	1.9 ± 1.5	NS
Glucose	93.3 ± 37	119 ± 53	NS
Hb1Ac	5.6 ± 0.6	7.5 ± 2.0	0.066
<b>Immunosuppression</b>			
Tacrolimus	100%	97%	NS
MMF (mycophenolate mofetil)	57%	83%	0.067
Everolimus	21%	6%	NS

## Results



## Adverse effects

Severe side effects that forced to stop the treatment with Pitavastatin have not been observed.

## Conclusions

Treatment of post-transplant dyslipidemia with Pitavastatin reduces LDL cholesterol, total cholesterol, and triglycerides similar to Atorvastatin, without causing deterioration of renal function or alterations in the glycaemic profile, however, prospective randomized studies are needed to confirm these findings.