

Clinical evaluation of the use of statins for diabetic dyslipidemia, especially in the Seoul Veterans Hospital



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OBJECTIVES

In diabetic patients, cardiovascular disease(CVD) is known to be the most leading cause of mortality. Due to the increased risk of CVD, the appropriate management of dyslipidemia is very important by using statins for lowering low density lipoprotein cholesterol(LDL-C) below the target level.

This study designed to evaluate drug use of stains to the management of dyslipidemia in diabetic paients.

METHODS

We analyzed lipid profiles of the diabetic outpatients (age>40), who started the statins for the first time during the first half of 2010, retrospectively. The criteria of evaluation on starting statins were high LDL-C level over 100mg/dL, the goals of treatment were LDL-C <100mg/dL or <70mg/dL with CVD.

The criteria was mainly based on the National Cholesterol Education Program Adult Treatment Panel 3 (NCEP ATP3) guideline updated and American Diabetes Association(ADA) & American College of Cardiology Foundation(ACC) consensus recommendations.

RESULTS

Result 1) Clinical characteristics of the study subjects

Characteristics	
Total	n=66
Sex	male
Age, yr	65.36±4.80(min.51~max.81)
Baseline LDL-C(mg/dL)	136.5±36.94
DM Patients with CVD	n=53 (80.30%)

Result 2) Accumulated attainment of target LDL-C level between 2 groups.

	Target Goals	Attainment	
DM Patients with CVD	LDL-C <70mg/dL	14	25
DM Patients without CVD	LDL-C <100mg/dL	11	(37.9%)

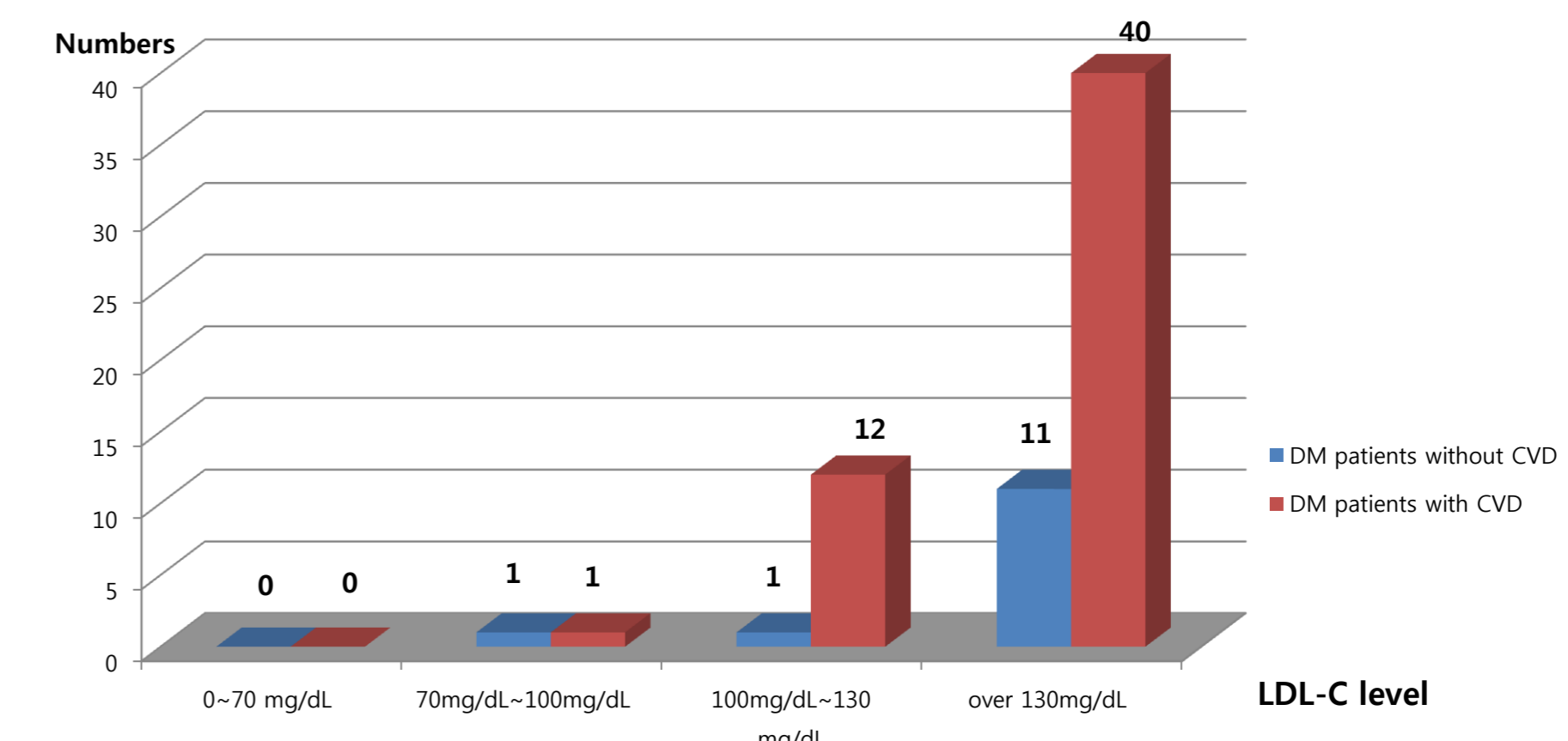
Result 3) Guidelines for lipid level

Guidelines for lipid level	Percentage
Check lipid level every year	75.8%
Initiate medication when LDL-C>100-130mg/dL	97.0%
Follow up lipid level within 4 weeks	0%

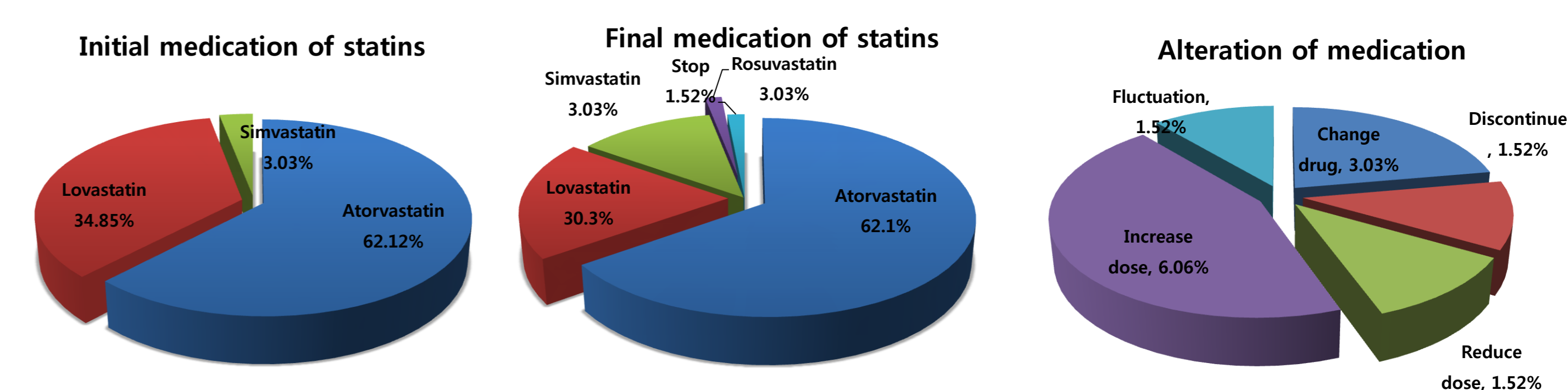
Result 4) Monitoring of Liver & Renal Function test

Monitoring of Liver & Renal Function test	
Check OT/PT & BUN/Cr level before medication	98.5%
Check OT/PT & BUN/Cr level after medication	59.1%

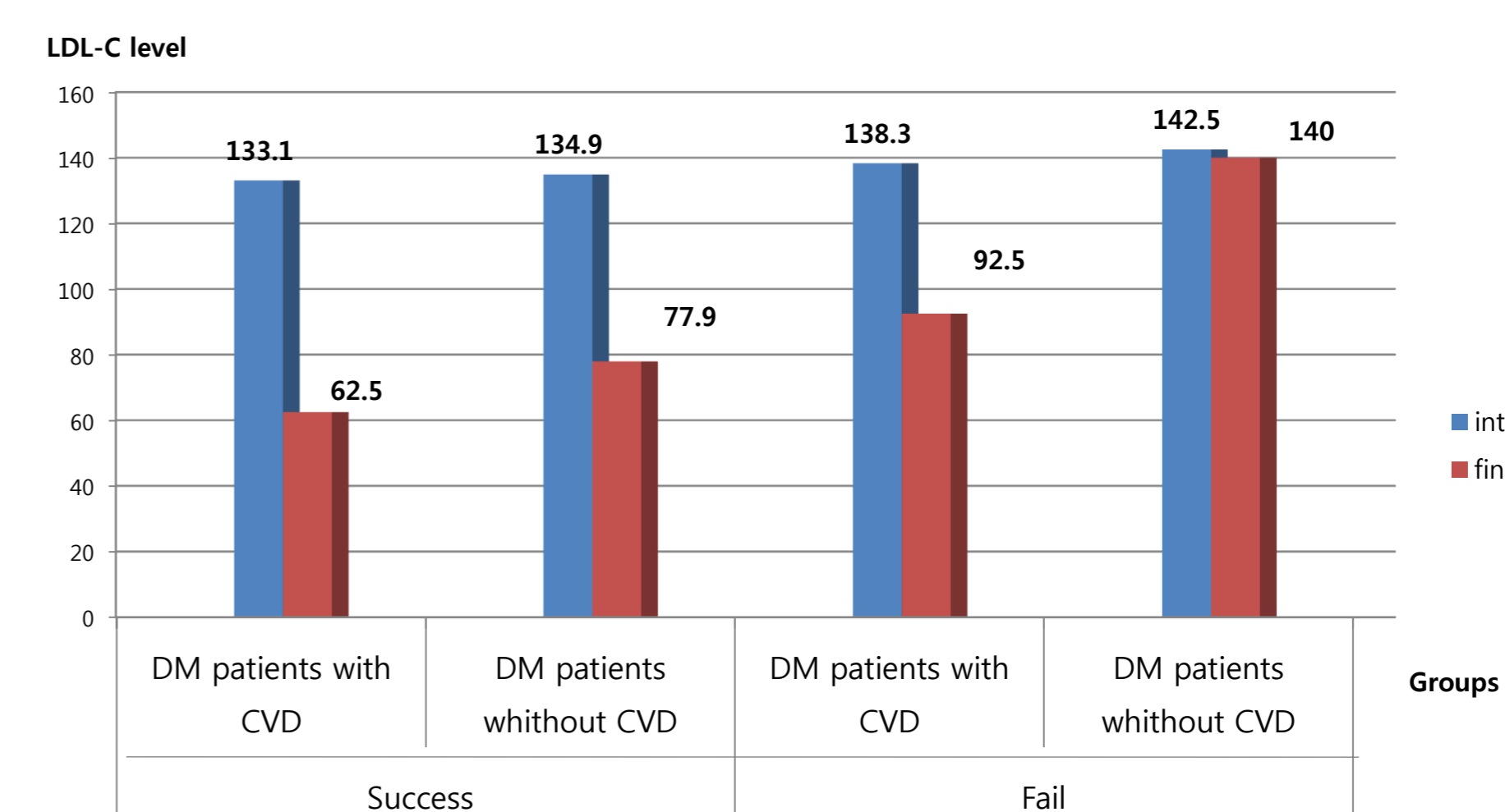
Result 5) Initial distribution of LDL-C level



Result 6) Medication changes of statins



Result 7) Alteration of LDL-C level depending on categories



DISCUSSION & CONCLUSIONS

We studied that 97.0% of our patients followed the guideline for initiation of statins. But, only 37.9% patient reached to the goal LDL-C level of guideline. This rate was lower than 47.4% of the other study of KDA(Korean Diabetes Association). Especially, in cases of patients with CVD, the rate of attainment were lower than that of patients without CVD. And none of patients measured lipid level according to the guideline(follow up 4 weeks later). It is mainly caused by the long term follow up. The medication period of Seoul veterans hospital was averagely 93 days.

Therefore, In cases of initiated patients, more rapid follow up is needed. And also, the roles of pharmacist to inspire awareness of patients about importance of regular medication and compliance.

REFERENCES

1. the National Cholesterol Education Program Adult Treatment Panel 3 (NCEP ATP3) guideline updated
2. American Diabetes Association(ADA) & American College of Cardiology Foundation(ACC) consensus recommendations.
3. Risk factors for coronary artery disease in non insulin dependent diabetes mellitus: United Kingdom prospective diabetes study (UKPDS :23).

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