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PATTERNS OF PRESCRIPTION OF STATINS IN A TERTIARY CARE CENTRE OF NORTH INDIA

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Abstract

Background: To study the pattern of prescription of statins in a tertiary care centre.

Methods: Study was conducted on Patients with indications for statins presenting to cardiology OPD, Medicine OPD and Endocrinology OPD and started on statins at PGIMER, Chandigarh, within a period of 9 months.

Results: Atorvastatin was found to be more commonly prescribed (n=179), which is about73.7%compared to Rosuvastatin (n=64) which is about 26.3%. In our study, 75 (68.8%)patients of primary prevention group and 104(77.6%) patients of secondary prevention group were receiving Atorvastatin and 34 (31.2%) patients of primary prevention group and 30(22.4%)patients of secondary prevention were receiving Rosuvastatin on their prescription.

Concluded: In our study, there were prescriptions with only Atorvastatin and Rosuvastatin. No prescription with other statins was found. Atorvastatin was being more commonly prescribed to rosuvastatin.

Keywords: Statin, Atorvastatin, Rosuvastatin

Introduction

According to American Diabetes Association (ADA) standards of care recommend moderate-intensity statins for all T2D patients between the age of 40 and 75 years as a primary prevention. This evidence is strong for those patients with the age group of 40–75 years, represented statin use showing benefit. Moreover, the American College of Cardiology/American Heart Association (ACC/AHA) clinical practice guidelines also suggest that patients 40–75 years of age with T2D and an LDL-C level of ≥ 70 mg/dL, moderate-intensity statins is required without calculating 10-year ASCVD risk. Formal risk estimation is unnecessary in people with T2D; since they are all at high risk of CVDs; thus proper uses of statins decrease the risk of coronary heart disease (CHD) in patients with T2D and hyperlipidemia.[1-2]

Material and Methods

Study area:
Patients with indications for statins presenting to cardiology OPD, Medicine OPD and Endocrinology OPD and started on statins at PGIMER, Chandigarh, within a period of 9 months.

Time period:
The study was conducted for 6 months in Cardiology OPD, Medicine OPD Endocrinology OPD and follow up was done for 3 months (from December 2018 to August 2019).

Type of study:
Descriptive cross-sectional for both primary and secondary objectives.

Study population:
Patients with indications for statins being prescribed statins at Cardiology, Medicine and Endocrinology OPD PGIMER, Chandigarh

Study subjects and sample size:
320 patients of both sexes and all ages with indications for statins being prescribed statins during the study period were chosen as cases.
Clinical records of all cases were reviewed for indications of statins andlipid profile was be done at baseline and after 3 months in all the subjects to study the response to statin therapy.

Inclusion criteria:

1. Patients with indications of statins for primary prevention according to AHA 2018 guidelines who are not on statins or have been receiving statins for not more than one month.
2. Patients receiving statins for secondary prevention of ASCVD , who are not on statins or have been receiving statins for not more than one month.

Exclusion criteria:

1. Patients with contraindications to statins (deranged LFTs: AST/ALT more than 5 times ULN).
2. Patients with ESRD /renal failure.
3. Patients who didn't give consent.
4. Patients lost to follow up.
5. Patients having mortality during the study period.
6. Patients who are already on statins for more than 1 month.

Results

In our study, there were prescriptions with only Atorvastatin and Rosuvastatin. No prescription with other statins was found. Atorvastatin was found to be more commonly prescribed (n=179), which is about73.7%compared to Rosuvastatin (n=64) which is about 26.3%. In our study, 75 (68.8%)patients of primary prevention group and 104(77.6%) patients of secondary prevention group were receiving Atorvastatin and 34 (31.2%) patients of primary prevention group and 30(22.4%)patients of secondary prevention were receiving Rosuvastatin on their prescription.

Table 1: Distribution pattern of Atorvastatin versus Rosuvastatin

Drugs	Prevention groups		Total
	Primary group (n=109)	Secondary group (n=134)	
Atorvastatin	75 (68.8%)	104 (77.6%)	179 (73.7%)
Rosuvastatin	34 (31.2%)	30 (22.4%)	64 (26.3%)

Data are presented as number (percentage).

Discussion

In our study the most common statin prescribed was Atorvastatin ,n=179(73.7%)followed by Rosuvastatin n= 64 patients (26.3%).In the primary prevention group 68.8% patients were prescribed Atorvastatin and 31.2% were prescribed Rosuvastatin .Whereas in secondary prevention group 77.6%were prescribed Atorvastatin and 22.4% were prescribed Rosuvastatin. This finding was consistent with a study by Sreedevi et al[3] in which the most commonly prescribed statin was Atorvastatin .This finding was also consistent with a study by Sangeetha Raja et al[3], in which Atorvastatin was the most favouredhypolipidaemic drug prescribed as monotherapy (53.4%).Our study is also in concordance with the study by Arul P et al[5]atTamil Nadu in which it was showed that Atorvastatin was the most commonly prescribed drug (50%)followed by Rosuvastatin (40%) and Simvastatin (10%).

Though our study differs from SCORE study[6], where Rosuvastatin was found to be the most preferred statin for primary (50.6%)and secondary prevention (49.4%) by physicians.

Conclusion

In our study, there were prescriptions with only Atorvastatin and Rosuvastatin. No prescription with other statins was found. Atorvastatin was being more commonly prescribed to rosuvastatin

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