THE ROLE OF ADHERENCE TO LIPID-LOWERING THERAPIES IN ACHIEVING LIPID TARGET: FINDINGS FROM REAL-WORLD ANALYSIS

26th EHAP CONGRESS, VIENNA, 23-25 MARCH, 2022

BACKGROUND AND OBJECTIVES

Several evidence proved that reducing lipid levels (i.e., low-density lipoprotein cholesterol, LDL-C) resulted in a significant decrease in cardiovascular (CV) events [1]. A high level of adherence to lipid-lowering drugs has been associated with a decreased morbidity and mortality among patients in CV prevention [2]. The objective of the present real-world analysis was to evaluate the impact of adherence to lipid-lowering drugs in reaching the lipid target in settings of clinical practice in Italy.

METHODOLOGY

The analysis was based on administrative and laboratory databases of selected Healthcare Units in Italy covering approximately 10% of the Italian population. Data were reproporioned on Italian population.

INCLUSION CRITERIA

Were included in the analysis all patients with:

- at least one laboratory LDL test between 2012 and 2019 AND
- with at least one prescription of lipid-lowering drugs in the 6 months before the last LDL test detection (which was defined as the index date)

ADHERENCE: adherence to therapies was measured as proportion of days covered (PDC) in the 6 months before index date. Patients were stratified by cut-off of PDC (low adherence, PDC 0-39%; moderate adherence PDC 40-79% and adherence with PDC ≥80%).

RESULTS

DISTRIBUTION OF PATIENTS AMONG COHORTS AND THEIR CHARACTERISTICS

Among overall patients prescribed statins and with at least a LDL determination, 1% was with familial hypercholesterolemia, 28% with previous CV events, 21% with diabetes and 50% in primary prevention (Figure 1).

The mean age at the inclusion averaged 62.7 years for familial hypercholesterolemia patients (46.3% males), 73.9 years for those with previous CV events (66.4% males), 71.4 years for those with diabetes (50.1% males) and 70.4 years for those in primary prevention (43.2% males). The Charlson Comorbidity Index averaged 0.8 (familial hypercholesterolemia), 1.2 (previous CV events), 1.6 (diabetes), 0.6 (primary prevention) (Table 1).

AChievment of lipid target based on adherence

Among the cohorts, the increasing of adherence was related to a higher achievement of LDL-target, with an increment of +53.2% among familial hypercholesterolemia patients, +43.1% in diabetic, +29.8% and +29.7% in those with previous CV events and primary prevention, while progressing from low (PDC<40%) to high (PDC>80%) levels of adherence (Figure 2).

However, while in diabetes and primary prevention clusters 80% and 86% of adherent patients, respectively, had their cholesterol level under control (the percentage of patients who reach the target is indicated in the red box), in the familial hypercholesterolemia and previous CV events clusters only 46% of adherent patients achieve the lipid target (indicated in the red box) (Figure 2).

CONCLUSIONS

The analysis of LDL management with lipid-lowering drugs in real-world setting of clinical practice in Italy showed adherence to be a key factor for cholesterol control. However, our findings underline a therapeutic need for patients that, although adherent, fail to achieve the lipid target, especially among those with previous CV events (that have low level of LDL to achieve) and with familial hypercholesterolemia (that have high LDL basal level), suggesting that therapeutic intensification should be applied.

AUTHORS

Luca Degli Esposti, Claudio Borghi, Marcello Galvani, Elisa Giacomini, Paolo Manotti, Anna Marra, Angelina Passaro, Valentina Perrone, Fabio Piericacci, Diego Sangiorgi, Alessandro Navazza

1. D.R. der Soll. Società Benefic, Health Economics & Outcomes Research, Bologna, Italy
2. Medicine Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy
3. U.O. Cardiologica Università Policlinico Tor Vergata, Rome, Italy
4. U.O. Cardiologica Policlinico Università di Roma “La Sapienza”, Rome, Italy
5. U.O. Cardiologica Policlinico Università “Sapienza”, Rome, Italy
6. U.O. Cardiologica Policlinico Università “La Sapienza”, Rome, Italy
7. Assistenza Farmaceutica AAU della Romagna, Forlì, Italy
8. A.S. Farmaceutica AAU di Reggio Emilia, Reggio Emilia, Italy

REF


Table 1. Baseline characteristics of patients

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total</th>
<th>LDL</th>
<th>CV events</th>
<th>Diabetes</th>
<th>Primary prevention</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean, SD)</td>
<td>72.5 (11.3)</td>
<td>62.7 (14.6)</td>
<td>73.9 (10.7)</td>
<td>71.4 (10.4)</td>
<td>70.4 (11.6)</td>
<td>0.001</td>
</tr>
<tr>
<td>Male (%)</td>
<td>50.9</td>
<td>46.3</td>
<td>66.4</td>
<td>50.1</td>
<td>43.2</td>
<td>0.025</td>
</tr>
<tr>
<td>Charlson index (mean, SD)</td>
<td>1.0 (1.0)</td>
<td>0.8 (0.5)</td>
<td>1.2 (1.2)</td>
<td>1.0 (0.8)</td>
<td>0.4 (0.7)</td>
<td>0.048</td>
</tr>
</tbody>
</table>

Figure 1. Stratification of included patients

Figure 2. Evaluation of patients achieving the LDL-target based on the levels of adherence to treatment

Abstract Number: 4CPS-267