

ADHERENCE AND EFFECTIVENESS OF PCSK9 INHIBITORS IN ROUTINE CLINICAL PRACTICE

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Background

Alirocumab and evolocumab are monoclonal antibodies that belong to a new class of cholesterol-lowering drugs by inhibiting the proprotein convertase subtilisin/kexin type-9 (PCSK9) enzyme.

Purpose

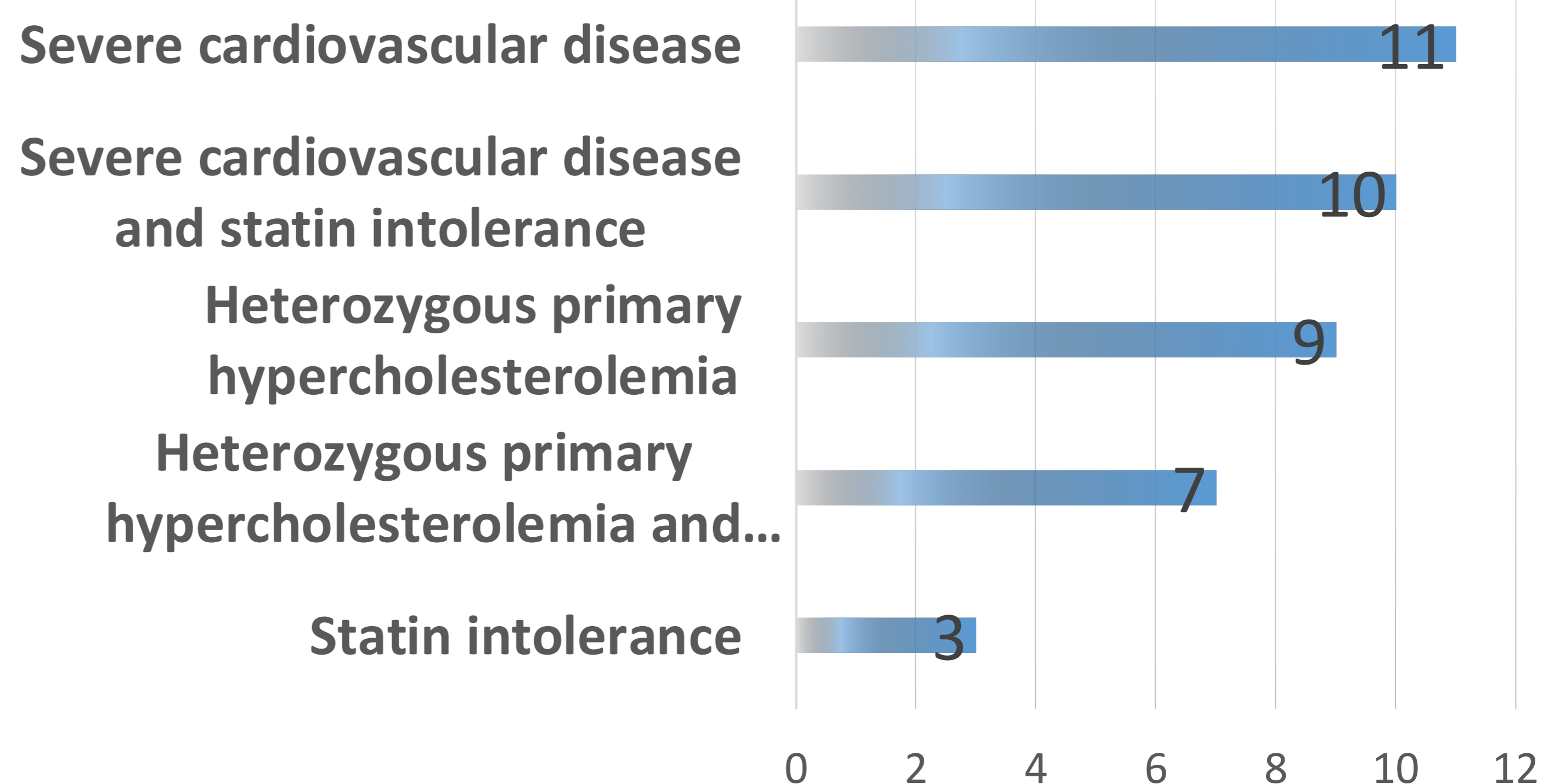
Evaluate the adherence to alirocumab and evolocumab therapies and its relation with drug effectiveness.

Material and methods

- ✓ Observational, descriptive and retrospective study conducted in a tertiary hospital. All patients that initiated treatment with alirocumab and evolocumab from October-2016 to February-2018 were included.
- ✓ Data sources were patient's electronic medical records and outpatient's electronic prescription and dispensation program. Main variables collected were: gender, age, indication, prescriber's medical departments and LDL-C.
- ✓ Adherence was calculated indirectly by consulting dispensing data in the outpatient prescription tool.
- ✓ Effectiveness was defined as the percent decrease in LDL-C from baseline to week 24.

Results

Men	22 Patients	55%
Women	18 Patients	45%
Median age	57 years	19-85
Patients treated with Alirocumab	19 Patients	47,50%
Patients treated with Evolocumab	21 Patients	52,50%



- ✓ Mean adherence index: 1,03 (SD 0,13)
- ✓ Mean basal LDL-C: 125,42 mg/dl (SD 43,34)
- ✓ Mean LDL-C after 24 weeks: 61,22 mg/dl (SD 44,17)
- ✓ ↓ in LDL-C from baseline to week 24: **43%**
- ✓ ↓ in LDL-C from baseline to week 24 in the **Alirocumab** group: **31%**
- ✓ ↓ in LDL-C from baseline to week 24 in the **Evolocumab** group: **54%**
- ✓ ↓ in **LDL-C >40%**: 28 patients (70%) with an adherence index of 1,04 (SD 0,12)
- ✓ ↓ in **LDL-C <40%**: 12 patients (30%) with an adherence index of 1,01 (SD 0,15)

Conclusions

1. Patients under PCSK9-inhibitors treatment are strong adherents to these therapies
2. Effectiveness of PCSK9-inhibitors in routine clinical practice has been proven with data comparable to randomized clinical trials. Apparently, evolocumab shows better effectiveness than alirocumab
3. Despite of the high adherence index for all patients, a slightly higher index has been found in patients with the best outcomes in LDL-C percent decrease