EFFECTIVENESS AND SAFETY OF MONOCLONAL ANTIBODY PCSK9 INHIBITORS

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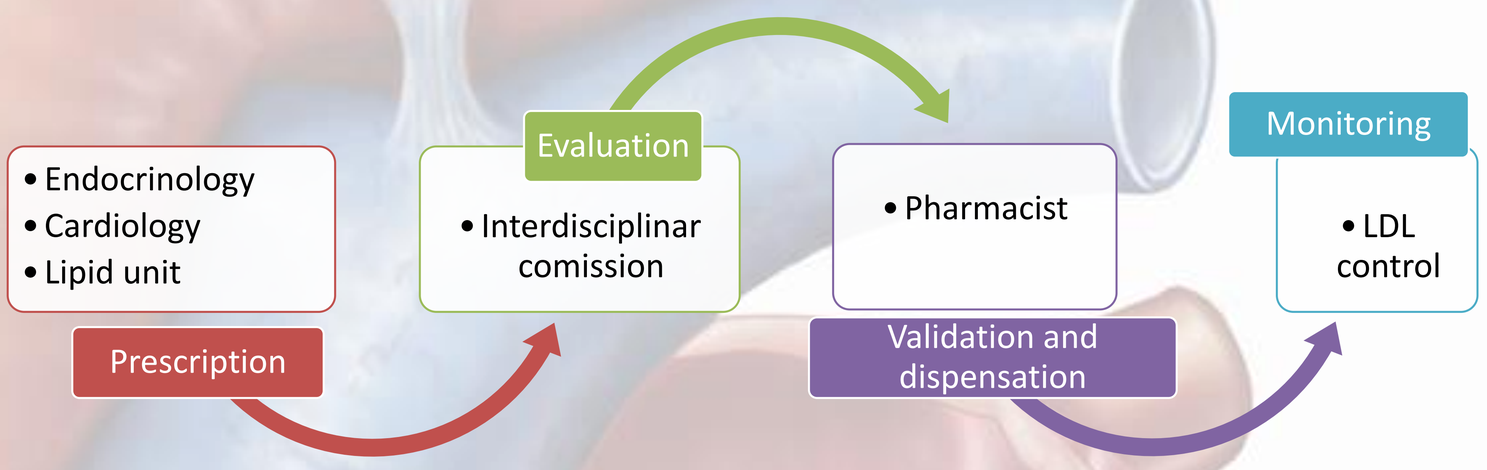
Background

Hypercholesterolaemia is the most frequent dyslipidemia and an important risk factor of cardiovascular disease. Monoclonal antibody PCSK9 inhibitors (PCSK9i), alirocumab and evolocumab, are a new class of drugs to decrease LDL cholesterol (LDLc) and can be an option for patients with heterozygous **familial hypercholesterolemia** (HeFH) and **cardiovascular diseases** (CVD) with high levels of LDLc in spite of statins treatment or statins intolerance

Objetive

Study the effectiveness and safety of PCSK9i in patients with LDLc>100 mg/dL and HeFH or CVD treated with high dose of atorvastatin o rosuvastatin or patients with statins intolerance.

Material and methods



Retrospective and descriptive study of all prescriptions of PCSK9i in a general hospital since May 2016 until August 2017. Demographic data, indication, basal LDLc, date of treatment start, adherence, LDLc after 3-6 months and after 6-9 months of treatment and adverse effects (AE) were registered in an Excel file. Effectiveness variable was LDLc<100 mg/dL or ≥50% LDLc reduction after 3-6 and 6-9 months of treatment.

Results

42 prescriptions: 12 HeFH, 17 CVD (6 rejected because not adherence to statins treatment) and 13 statins intolerants (6 rejected because criteria of intolerance was not clear). Media age was 59±10years.

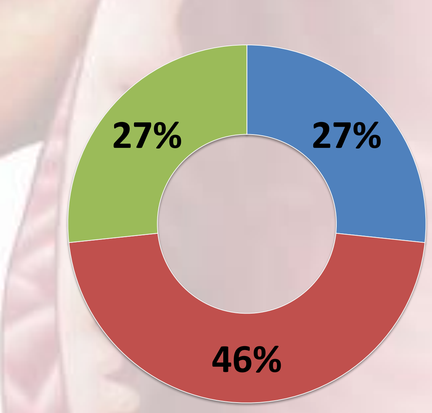


Figure 1: Percentage of patients according to origin of prescribing doctor.

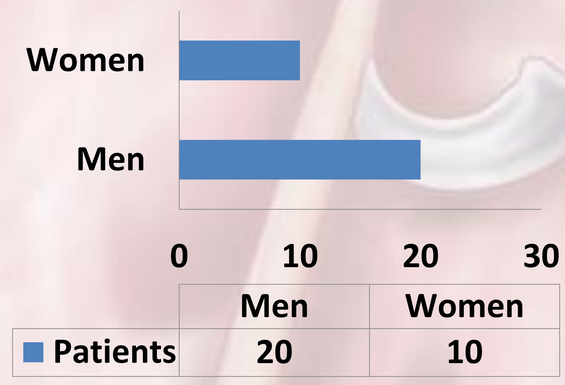


Figure 2: Sex distribution

Finally, 30 patients were treated with PCSK9i (combined with statins/ezetimibe except if intolerance). All patients were adherents.
Treatment was intensified in 4 patients (150 mg of alirocumab), because LDLc>100 mg/dL.
The results were shown in table 1

With <u>alirocumab</u> 1 patient had skin rash, 1 local reaction in injection site and 1 respiratory symptoms.
With <u>evolocumab</u> 4 patients had back pain and 1 gastrointestinal disorders. One patient with CVD and treated with alirocumab discontinued at month because of causes not related with treatment

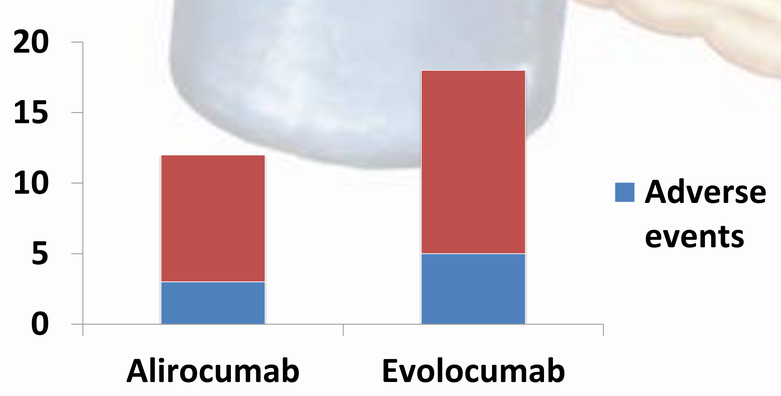


Figure 3: Number of patients with adverse events

Table 1	HeFH (n=9)	CVD (n=14)	Statins intolerants (n=7)
Drug (number of patients)	Alirocumab (n=1) Evolocumab (n=8)	Alirocumab (n=8) Evolocumab (n=6)	Alirocumab (n=3) Evolocumab (n=4)
Treatment duration (days)	330 (90-146)	210 (22-422)	274 (22-420)
Basal LDLc (mg/dL)	139(111-219)	142 (105-206)	202(106-242)
LDLc after 3-6 months (mg/dL)	n=9 74 (20-109)	n=11 75 (11-128)	n= 5 112 (22-126)
% LDLc reduction after 3-6 months of treatment	50% (39-85%)	47% (4-92%)	45% (35-79%)
Effectiveness after 3-6 months of treatment.	100%	55% (6/11)	40% (2/5)
LDLc after 6-9 months (mg/dL)	n= 5 48(24-113)	n= 5 30 (10-275)	n= 4 87 (9-110)
Effectiveness after 6-9 months of treatment	100%	80% (4/5)	75% (3/4)

Conclusion

PCSK9i are effectiveness at 3-6 months specially in HeHF. In CVD and statins intolerants are necessary more than 6 months to achieve a good effectiveness. AE were as expected and any patient discontinued treatment for AE.

Bibliography

- Informe de posicionamiento terapéutico PT-EVOLOCUMAB/V1/03032016. Available in : https://www.aemps.gob.es/medicamentosUsoHumano/informesPublicos/docs/IPT-evolocumab-repatha.pdf
- Informe de posicionamiento terapéutico PT-ALIROCUMAB/V1/22042016. Available in : https://www.aemps.gob.es/medicamentosUsoHumano/informesPublicos/docs/IPT-alirocumab-Praluent-hipercolesterolemia.pdf
- Jennifer G. Robinson, M.D. et al. Efficacy and Safety of Alirocumab in Reducing Lipids and Cardiovascular Events. N Engl J Med. 2017; 372:1489-1499
- Marc S. Sabatine, M.D. ert al. Evolocumab and Clinical Outcomes in Patients with Cardiovascular Disease. N Engl J Med 2017; 376:1713-1722